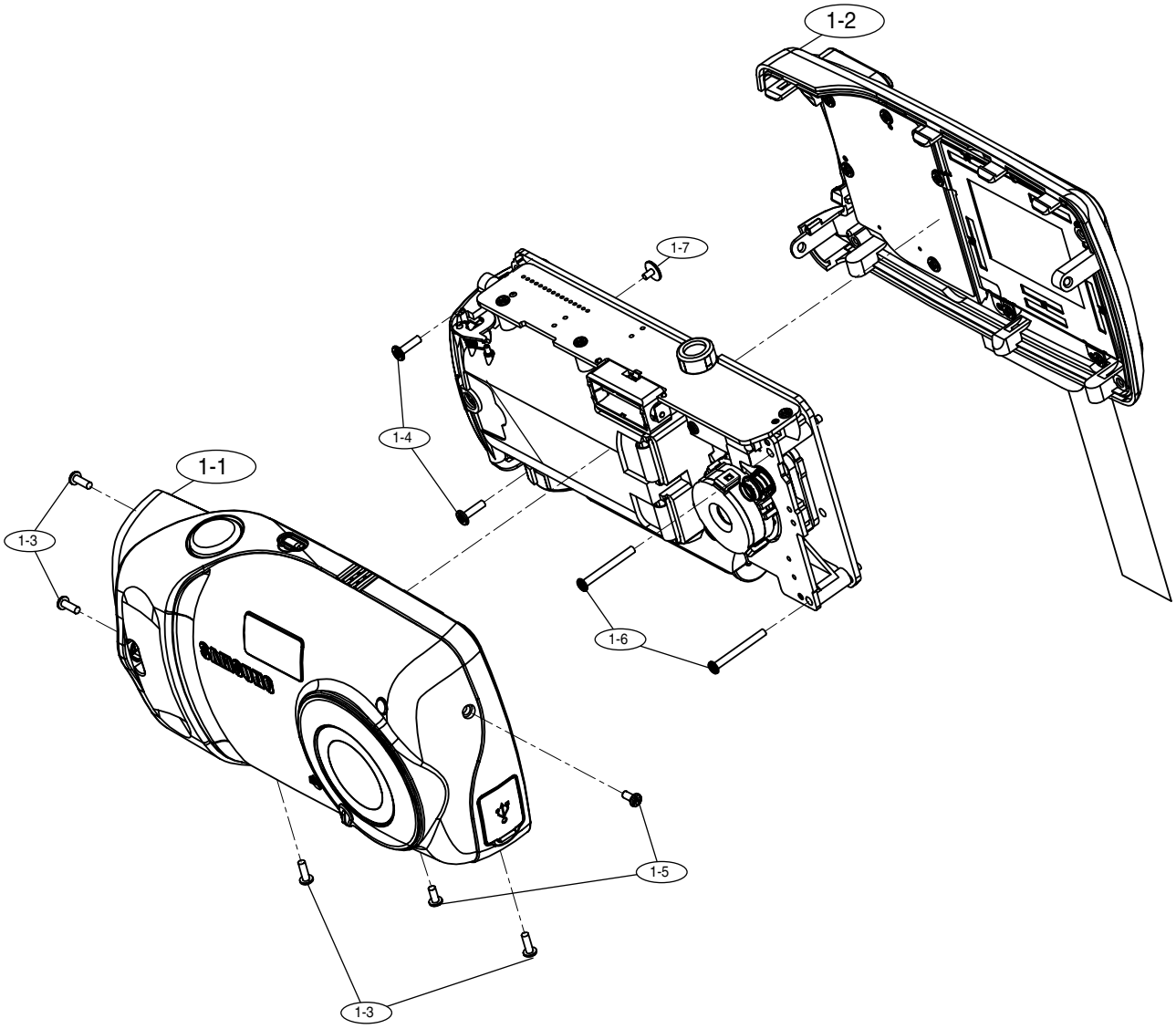
Ⅲ. EXPLODED VIEW AND PART LIST

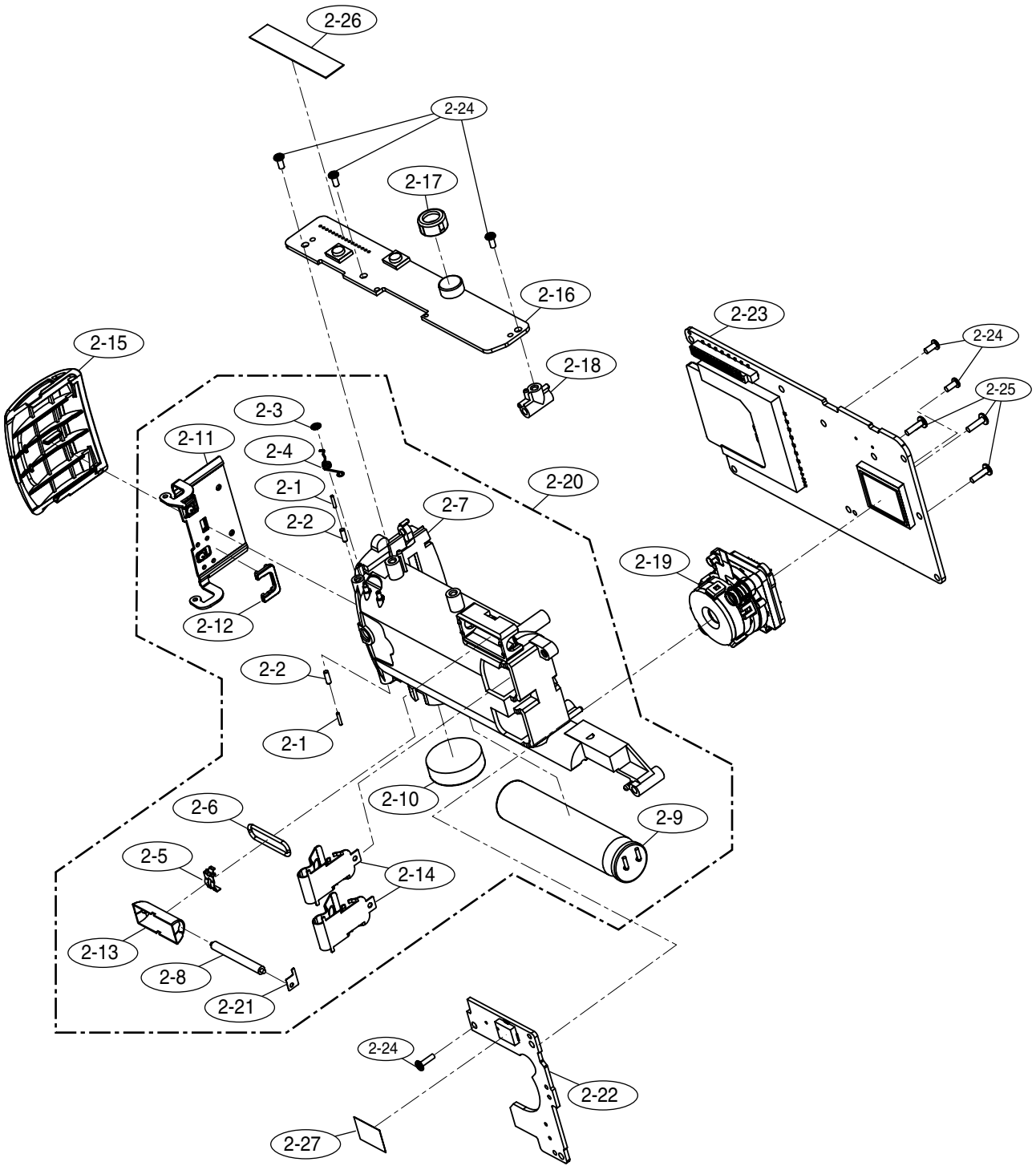
1. MAIN ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Remarks
1-1	Q9007232501A	Front Cover Asscmbly-Blue(DIGIMAX A302)	1	
	Q9007232601A	Front Cover Asscmbly-Silver(DIGIMAX A302)	1	
1-2	Q9007232801A	Back Cover Asscmbly-Blue	1	
	Q9007232901A	Back Cover Asscmbly-Silver	1	
1-3	Q6009002901A	Screw	4	
1-4	Q6003045901A	Screw	2	
1-5	Q6009003001A	Screw	2	
1-6	Q6009003101A	Screw	2	
1-7	Q6009003201A	Screw	1	

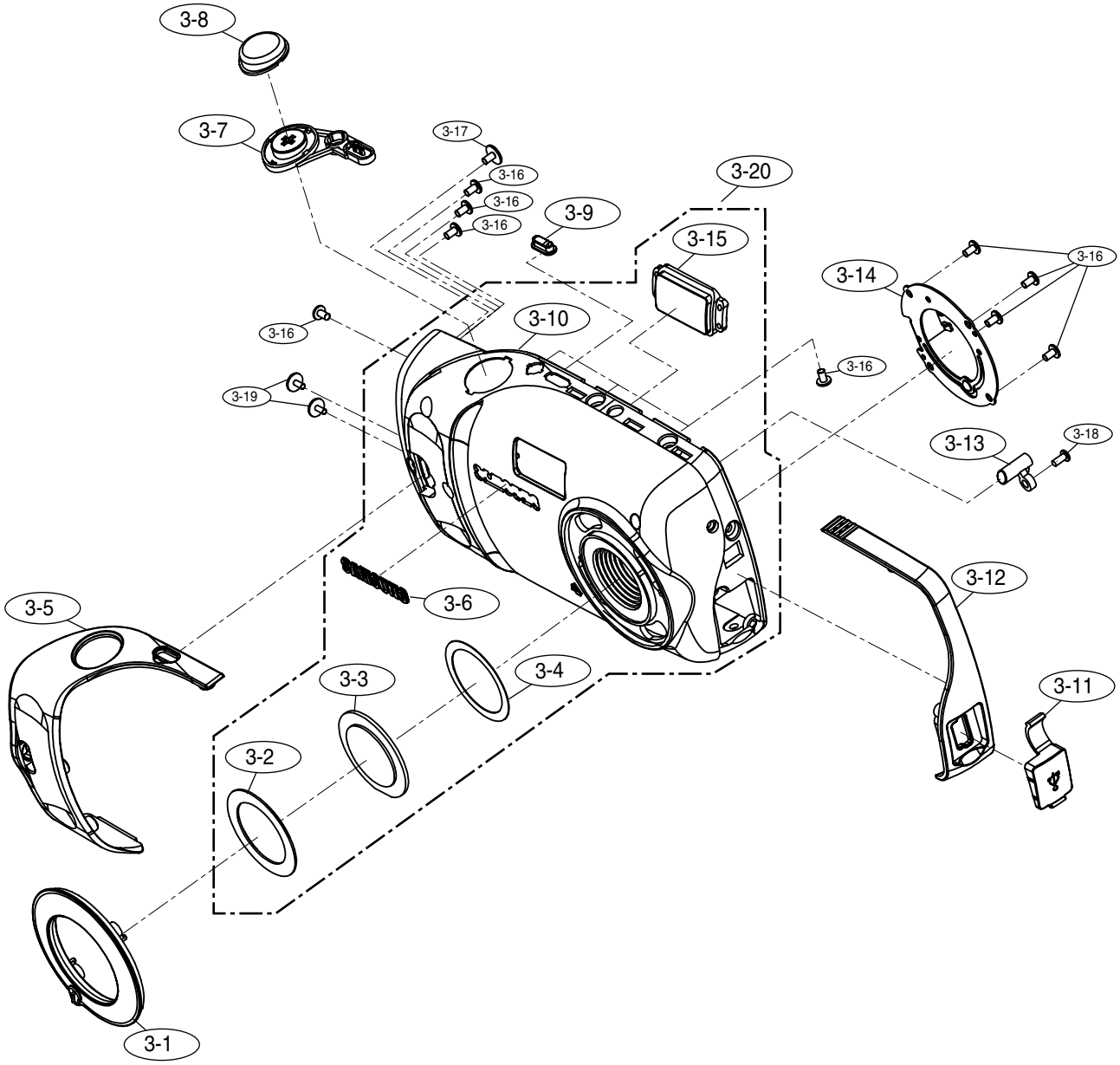
2. BODY ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Remarks
2-1	Q7009000101A	Battery Stop Axle	1	
2-2	Q7009000101A	Battery Cover Axle	1	
2-3	Q6107064801A	Battery Spring Washer	1	
2-4	Q6107064901A	Battery Cover Spring	1	
2-5	Q7009000201A	Trigger Cover	1	
2-6	Q7309044801A	Flash Rubber	1	
2-7	Q7204023101A	Battery Compartmant	1	
2-8	Q0611004101A	Flash Tube	1	
2-9	Q2401009101A	Photo Flash CAP	1	
2-10	Q3002001401A	Piezo Buzzer	1	
2-11	Q7001004901A	Battery Contact Lower	1	
2-12	Q7209001401A	Battery Stopper	1	
2-13	Q0607000901A	Flash Retlector	1	
2-14	Q7101000601A	Battery Contact Upper	2	
2-15	Q7204023501A	Ass'y Battery Cover-Blue	1	
	Q7204023601A	Ass'y Battery Cover-Silver	1	
2-16	Q9008087501A	Assy' Shutter	1	
2-17	Q7309044501A	MIC Rub Contact	1	
2-18	Q7204023201A	PCB Fix Boss	1	
2-19	Q9002140701A	Lens Assembly	1	
2-20	Q9001105201A	Battery Compartmant Assmbly	1	
2-21	Q7001005001A	Tube Contact	1	
2-22	Q9008087601A	Ass'y USB	1	
2-23	Q9008087701A	Ass'y Main	1	
2-24	Q6003042301A	Screw	6	
2-25	Q6003039401a	Screw	3	
2-26	Q7409190801A	Flash Mylar	1	
2-27	Q7409190901A	USB Mylar	1	

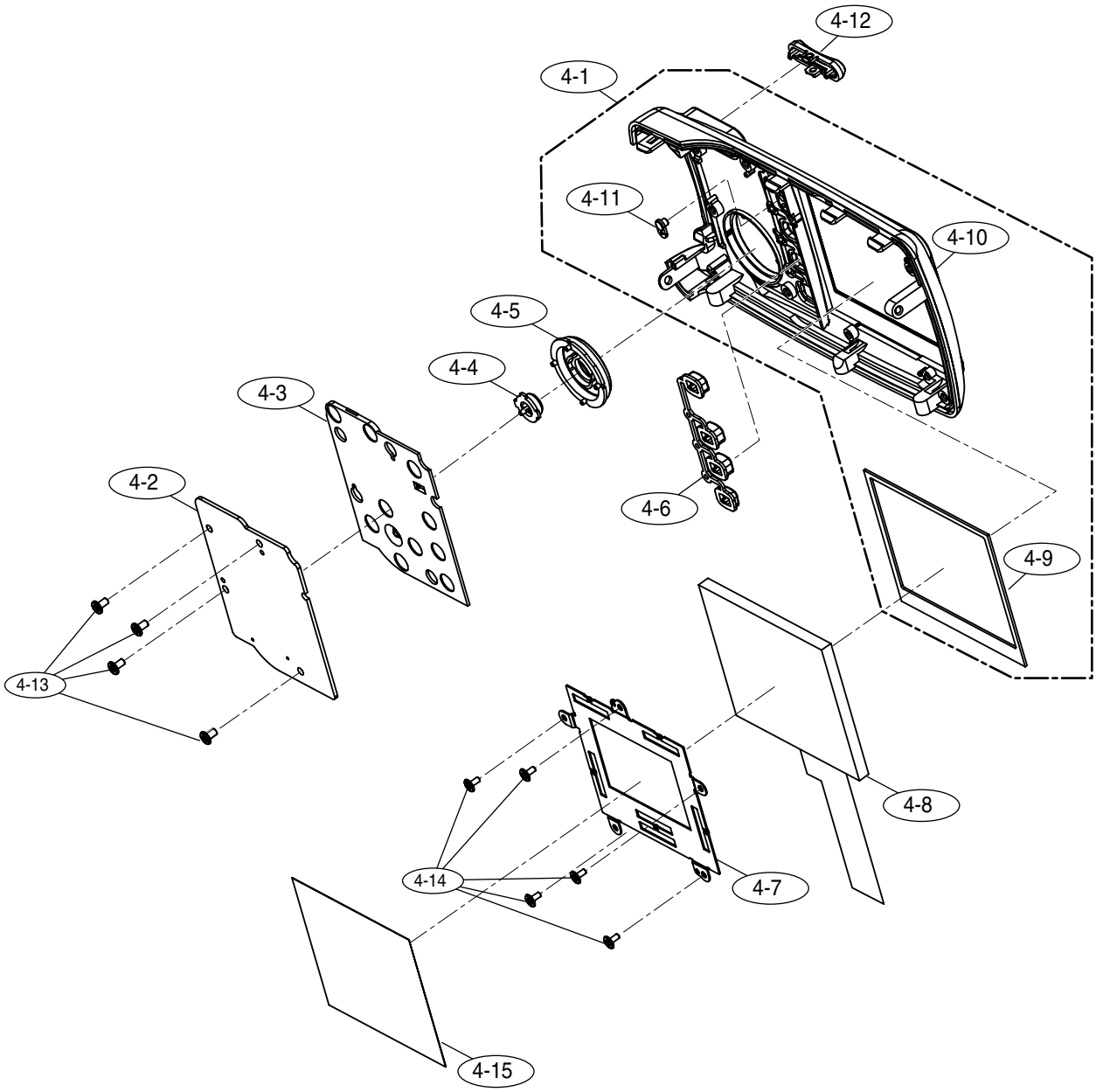
3. FRONT COVER ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Remarks
3-1	Q7204022801A	Focus Ring	1	
3-2	Q7409190401A	Lens Panel	1	
3-3	Q7209000601A	Lens Cover	1	
3-4	Q7409190501A	Lens Plate Tape	1	
3-5	Q7217356301A	Ass'y Middle Cover	1	
3-6	Q7217303501A	Samsung Plate	1	
3-7	Q7204022901A	Power Release Button Arm	1	
3-8	Q7209000701A	Ass'y Release Button	1	
3-9	Q7209000801A	Ass'y Power Button	1	
3-10	Q7204023801A	Front Cover-Blue(DIGIMAX A302)	1	
	Q7204023901A	Front Cover-Silver(DIGIMAX A302)		
3-11	Q7309046301A	USB Cover TPU	1	
3-12	Q7217356501A	Ass'y Middle Cover-2	1	
3-13	Q7209000901A	Front Led Guide	1	
3-14	Q7101000501A	Lens Cover Sheet Metal	1	
3-15	Q7217356601A	Flash Cover	1	
3-16	Q6003031501A	Screw	11	
3-17	Q6009003301A	Screw	1	
3-18	Q6003045901A	Screw	1	
3-19	Q6003031301A	Screw	2	
3-20	Q9007233101A	Front Cover SUB Asscmbly-Blue(DIGIMAX A302)	1	
	Q9007233201A	Front Cover SUB Asscmbly-Silver(DIGIMAX A302)	1	

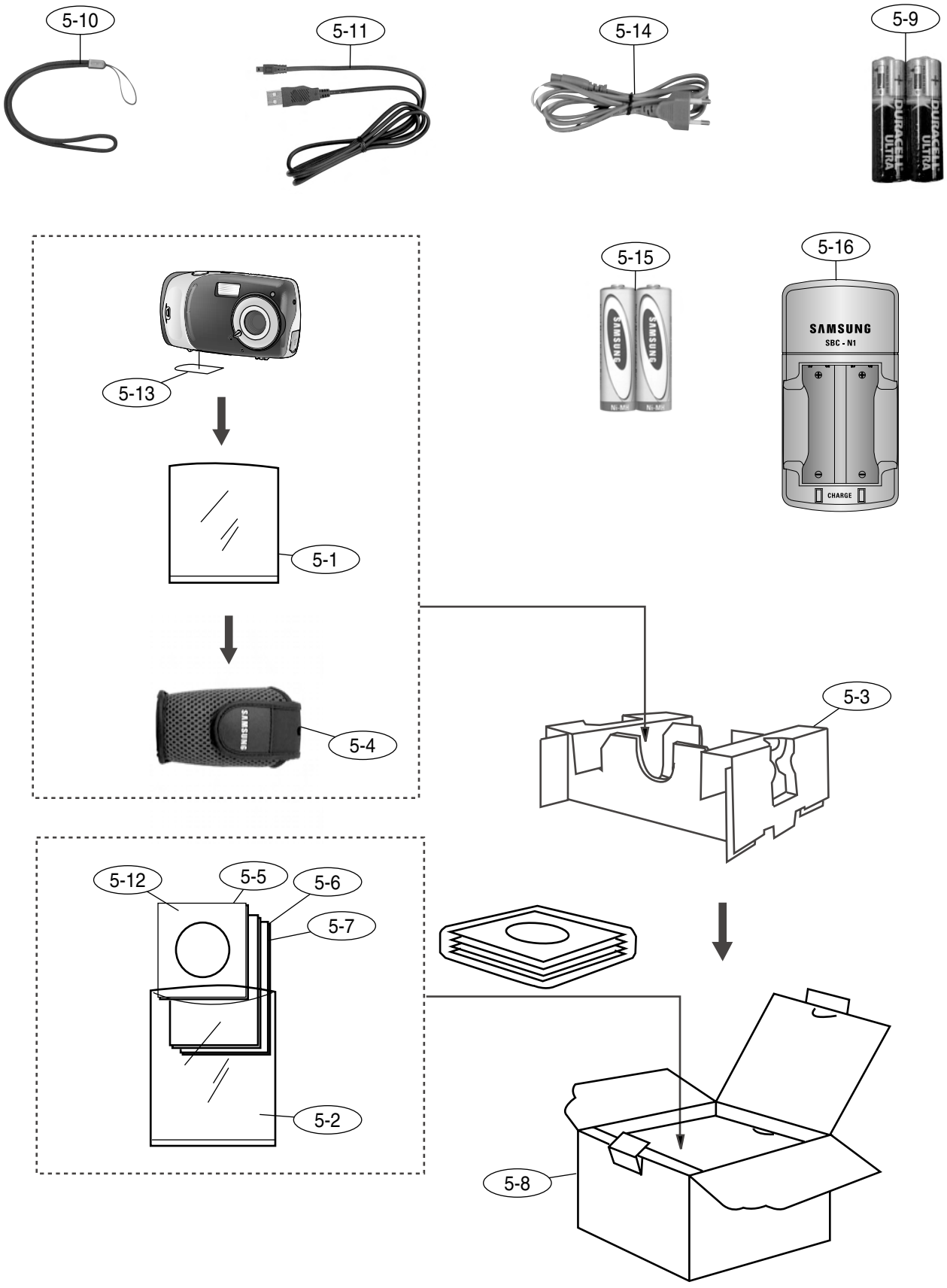
4. BACK COVER ASSEMBLY



▶ PARTS LIST

Fig.No	Parts No.	Parts Name	Q'ty	Remarks
4-1	Q9007233401A	Back Cover SUB Assnbly-Blue	1	
	Q9007233501A	Back Cover SUB Assnbly-Silver	1	
4-2	Q9008087801A	Key Assembly	1	
4-3	Q7309046401A	Key Pad Rutter	1	
4-4	Q7209001001A	Ass'y OK Button	1	
4-5	Q7209001101A	Ass'y Direction Button	1	
4-6	Q7204024101A	Ass'y Button	1	
4-7	Q7001005101A	TFT Holder	1	
4-8	Q0704011601A	TFT LCD	1	
4-9	Q7409193801A	TFT Sponge	1	
4-10	Q7204024201A	Back Cover -Blue	1	
	Q7204024301A	Back Cover -Silver	1	
4-11	Q7209001201A	Led Guide Back	1	
4-12	Q7209001301A	Ass'y Zoom Button	1	
4-13	Q6003031501A	Screw	4	
4-14	Q6009003401A	Screw	5	
4-15	Q7409190701A	TFT Mylav	1	

5. PACKING ITEM



▶ PARTS LIST

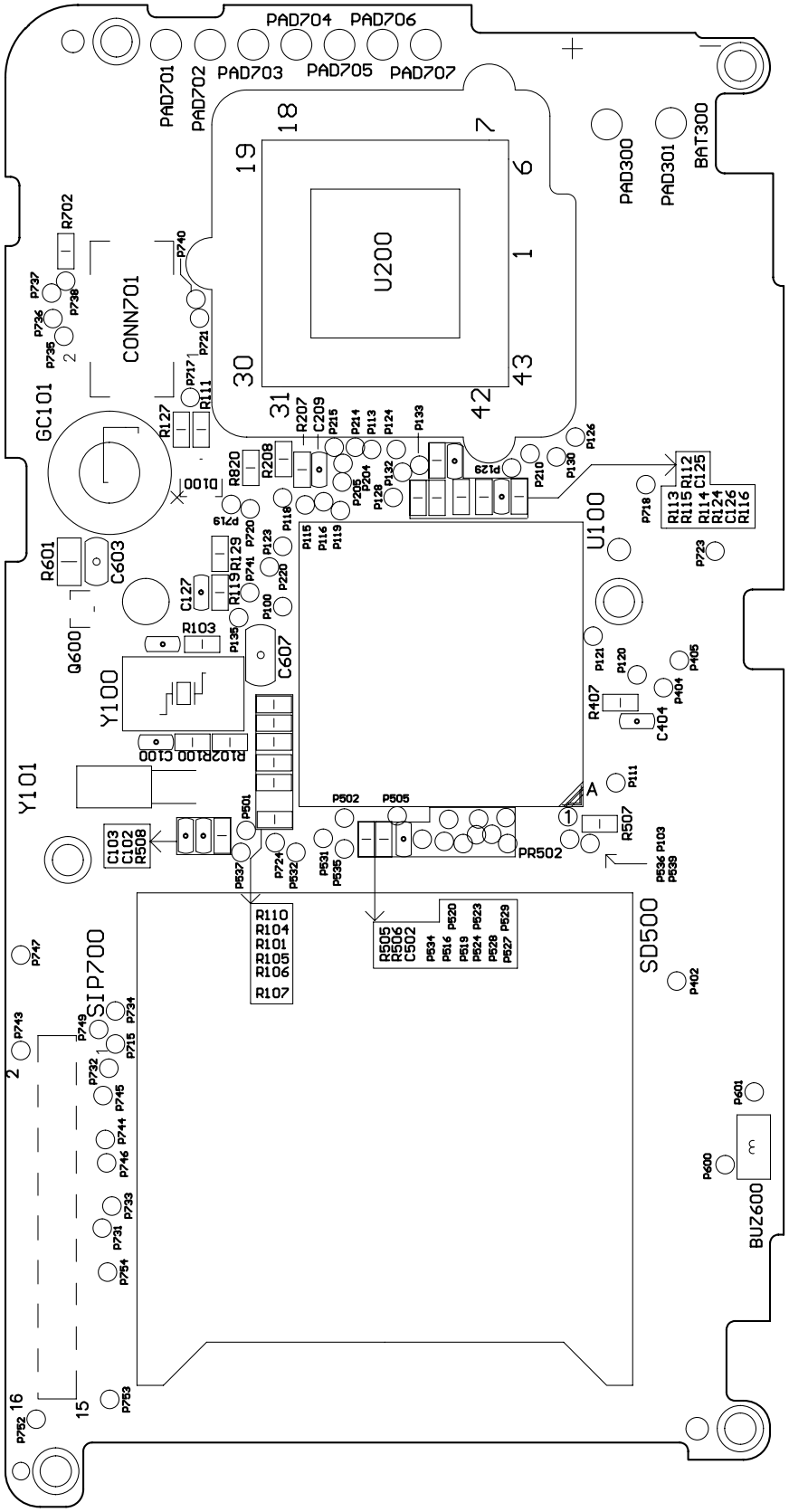
Fig.No	Parts No.	Parts Name	Q'ty	Remarks
5-1	QP960210101A	PE BAG (FOR CAMERA)	1	
5-2	Q6909011601A	PE BAG (FOR ACCESSORY)	1	
5-3	Q6901208301A	INNER PAD_D Digimax A402_KOR/EXP	1	
5-4	Q6904026401A	POUCH_Digimax A402 (SAMSUNG)	1	
5-5	Q6806260701A	Q/GUIDE_Digimax A302_ENG	1	
	Q6806260801A	Q/GUIDE_Digimax A302_GER	1	
	Q6806260901A	Q/GUIDE_Digimax A302_FRA	1	
	Q6806261001A	Q/GUIDE_Digimax A302_SPA	1	
	Q6806261101A	Q/GUIDE_Digimax A302_ITA	1	
	Q6806261201A	Q/GUIDE_Digimax A302_TUR	1	
	Q6806261301A	Q/GUIDE_Digimax A302_DUT	1	
	Q6806261401A	Q/GUIDE_Digimax A302_POR	1	
	Q6806261501A	Q/GUIDE_Digimax A302_SWE	1	
	Q6806261601A	Q/GUIDE_Digimax A302_DEN	1	
	Q6806261701A	Q/GUIDE_Digimax A302_FIN	1	
	Q6806261801A	Q/GUIDE_Digimax A302_RUS	1	
	Q6806261901A	Q/GUIDE_Digimax A302_CHI(S)	1	
	Q6806262001A	Q/GUIDE_Digimax A302_CHI(T)	1	
5-6	Q6806262101A	U/MANUAL_Digimax A302_ENG	1	
	Q6806262201A	U/MANUAL_Digimax A302_GER	1	
	Q6806262301A	U/MANUAL_Digimax A302_FRA	1	
	Q6806262401A	U/MANUAL_Digimax A302_SPA	1	
	Q6806262501A	U/MANUAL_Digimax A302_ITA	1	
	Q6806262601A	U/MANUAL_Digimax A302_TUR	1	
	Q6806262701A	U/MANUAL_Digimax A302_DUT	1	
	Q6806262801A	U/MANUAL_Digimax A302_POR	1	
	Q6806262901A	U/MANUAL_Digimax A302_SWE	1	
	Q6806263001A	U/MANUAL_Digimax A302_DEN	1	
	Q6806263101A	U/MANUAL_Digimax A302_FIN	1	
	Q6806263201A	U/MANUAL_Digimax A302_RUS	1	
	Q6806263301A	U/MANUAL_Digimax A302_CHI(S)	1	
	Q6806263401A	U/MANUAL_Digimax A302_CHI(T)	1	
5-7	Q6807003003U	WARRANTY CARD_EXP	1	
	Q6807010903C	WARRANTY CARD_RUS(3 YEARS)	1	
	Q6807011301B	WARRANTY CARD_TSOE(CHINA)	1	
5-8	Q6901210701A	G/T BOX_Digimax A302_EXP/AUS	1	
5-9	Q4301001801A	"ALKALINE (1.5V, AA) 2EA - DURACEL ULTRA"	1	
5-10	Q7409121701A	STRAP_D301/D202/D401/U-CA 501/D402_KOR/EXP	1	
5-11	Q3801002801A	USB CABLE_D200/201/300/301/202	1	
5-12	Q4609011701A	DRIVER + Digimax Viewer 2.1+ Arcsoft PhotoImpression 4.01		
5-13	Q7409191301A	FCC LABEL_Digimax A302_EXP (MADE IN CHINA)	1	
	Q7409191401A	FCC LABEL_Digimax A302_EXP (MADE BY SAMSUNG)	1	

Fig.No	Parts No.	Parts Name	Q'ty	Remarks
5-14	Q3801003001A	AC CODE CABLE_KOR-D1	1	
	Q3801003201A	AC CODE CABLE_EXP-D1	1	
	Q3801003101A	AC CODE CABLE_USA-D1	1	
	Q3801001001A	AC CODE CABLE_UK-DSC220SE	1	
	Q3801003401B	AC CODE CABLE_AUS-D1	1	
5-15	Q4301003101A	"Ni-MH BATTERY SNB-2312 (1.2V, AA) - SAMSUNG"	1	
5-16	Q4301003001A	Ni-MH CHARGER SBC-N1	1	

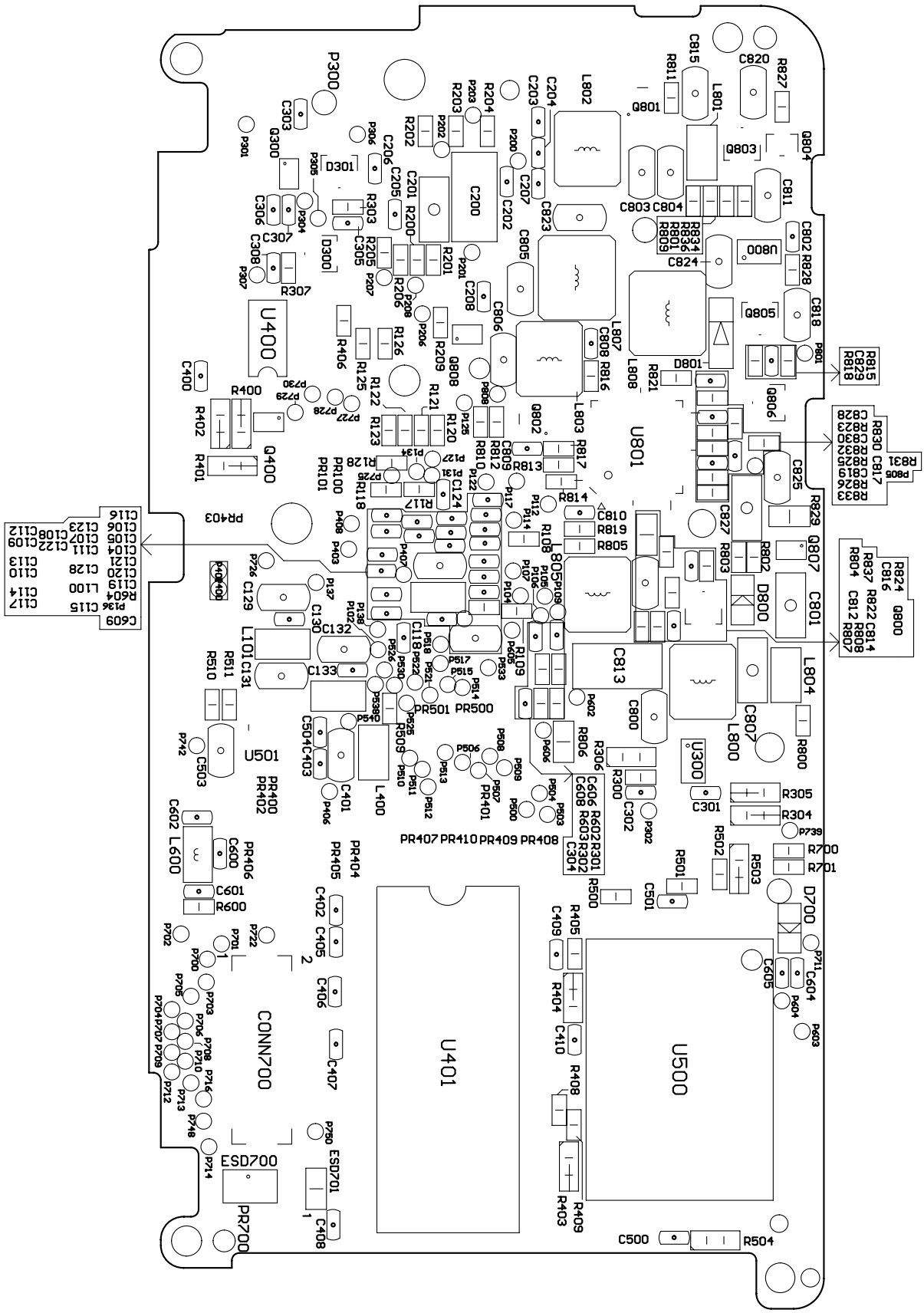
Ⅴ. PATTERN DIAGRAM

1. PARTS ARRANGEMENT FOR EACH PCB ASS'Y

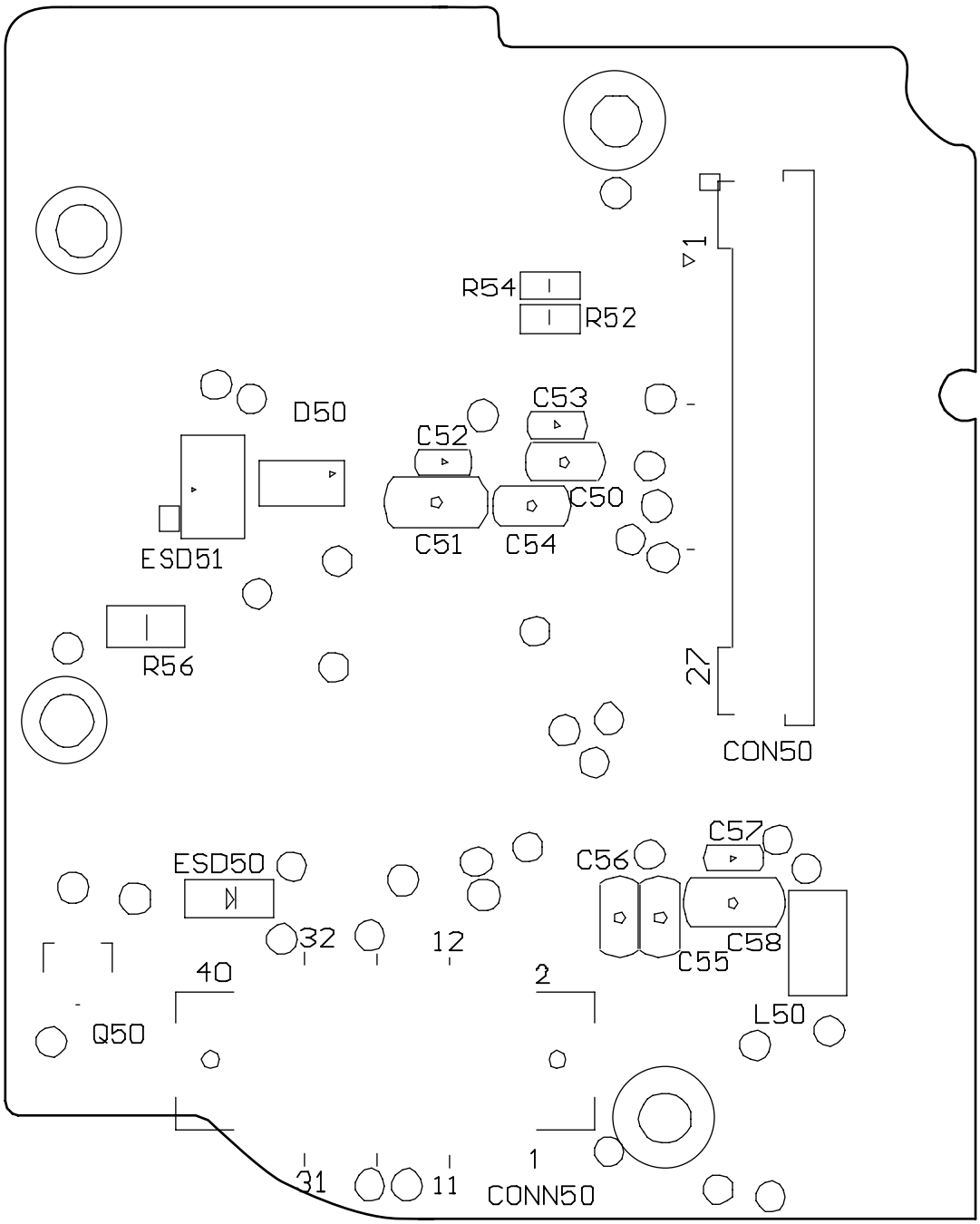
1) MAIN_TOM



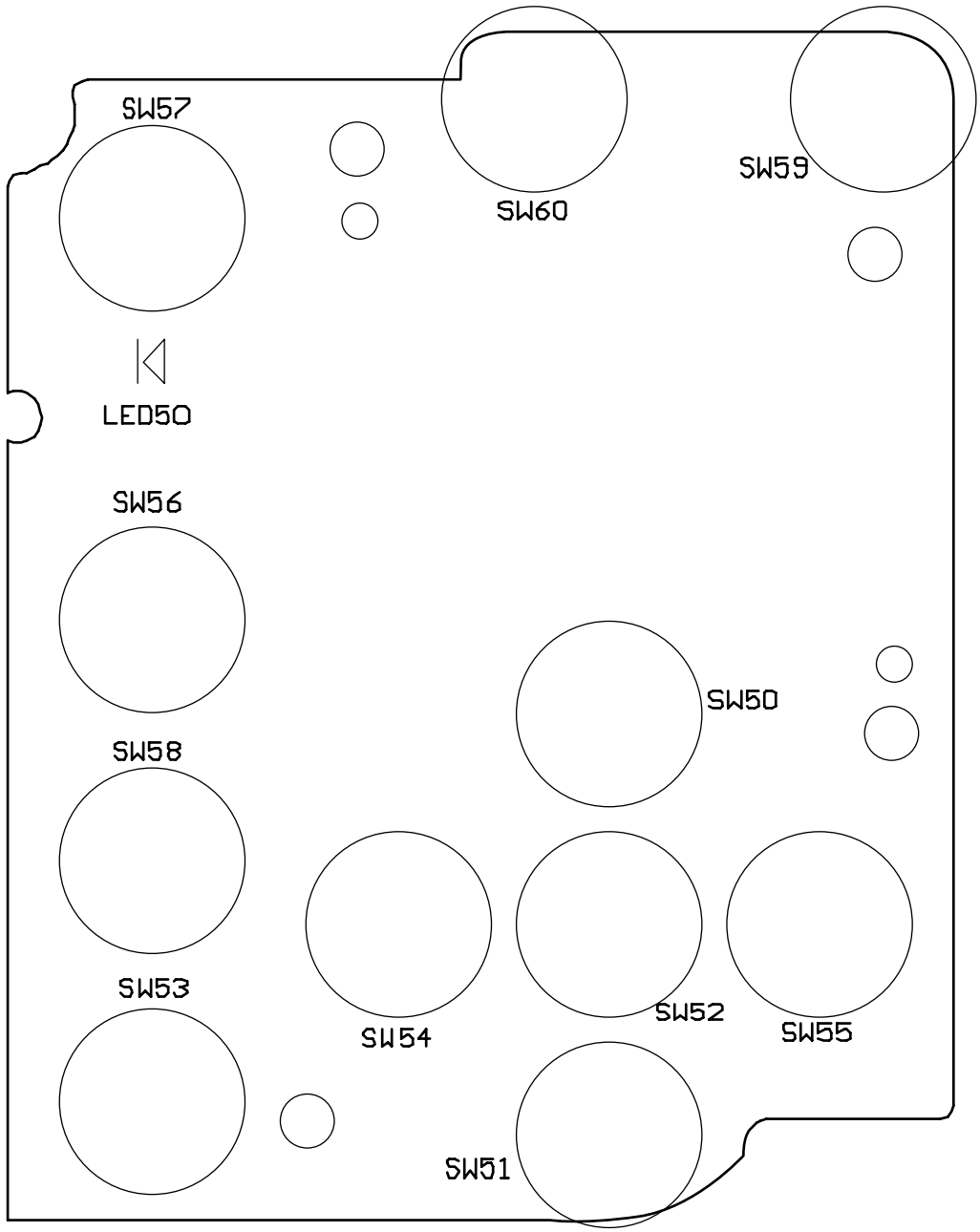
2) MAIN_BOTTOM



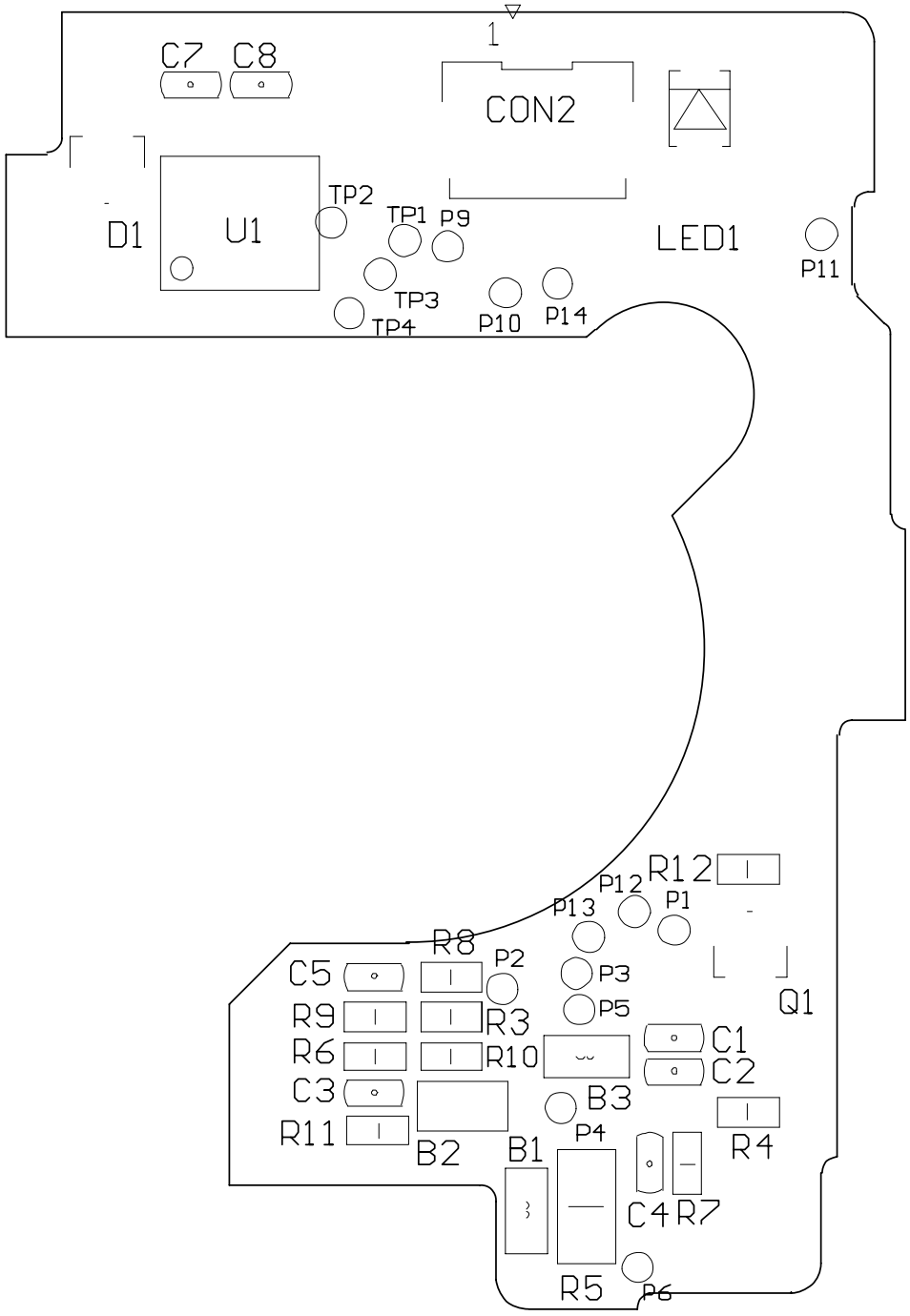
3) KEY_TOP


R54
R52
D50
C53
C52
C50
C51
C54
ESD51
R56
1
27
CON50
C57
ESD50
C56
C58
C55
32
12
40
2
Q50
L50
31
11
1
CONN50

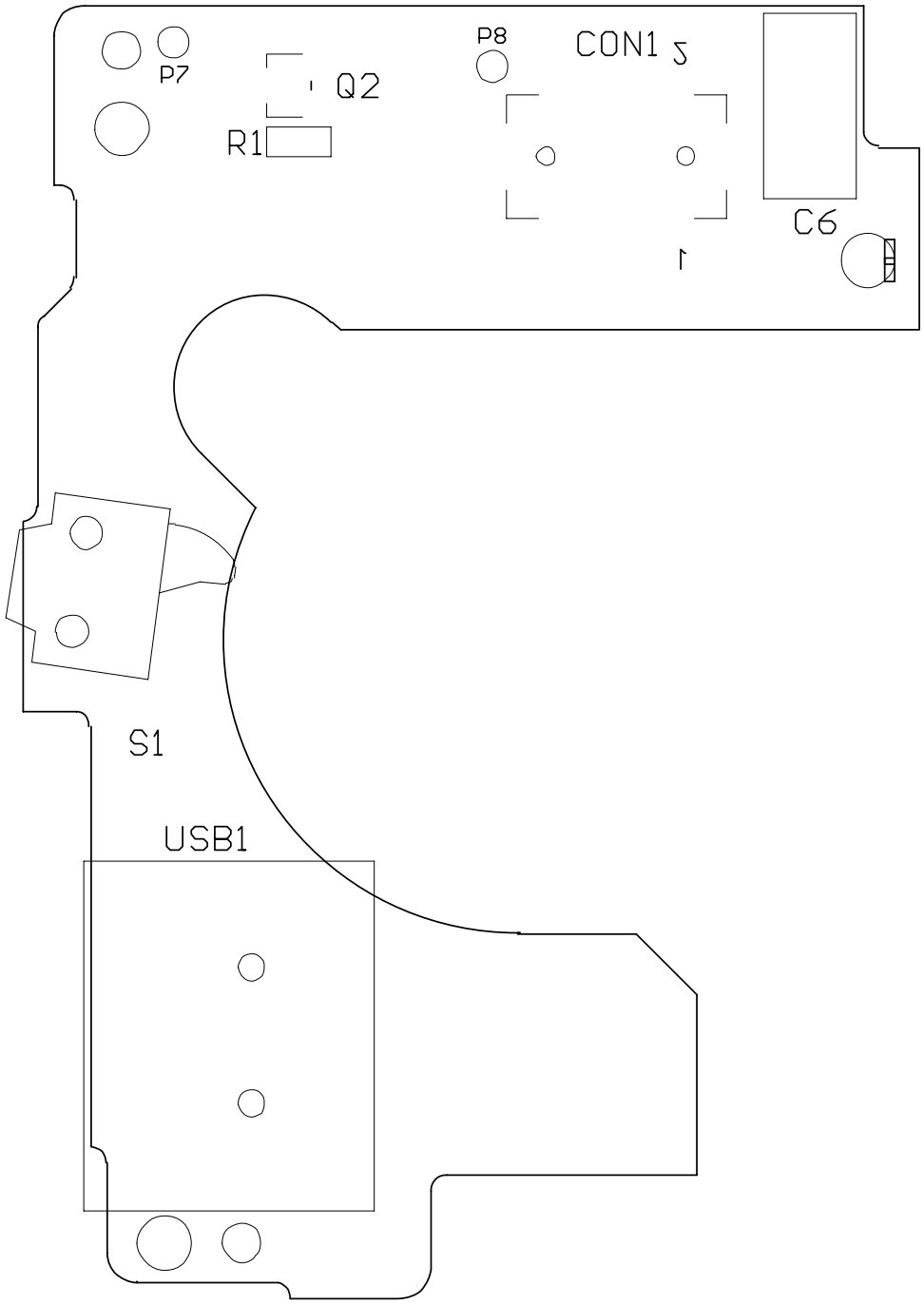
4) KEY_BOTTOM



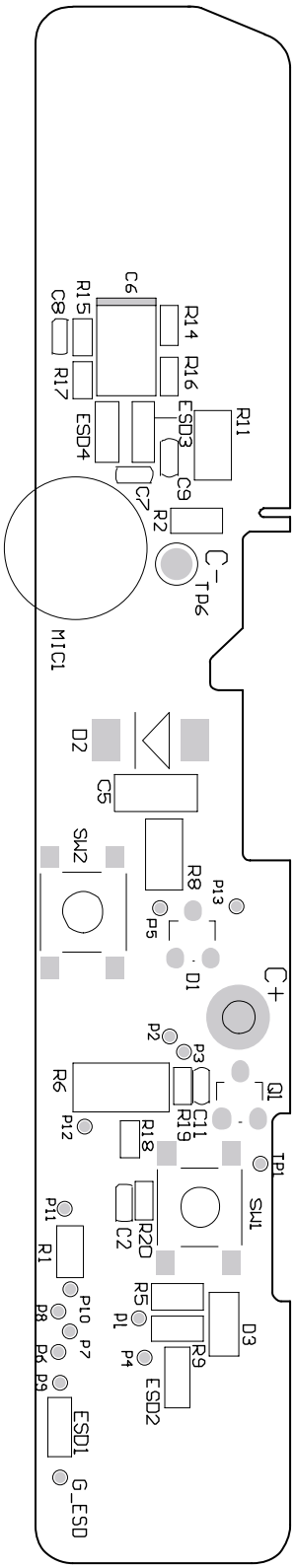
5) USB_TOP


1
C7
C8
CON2
D1
U1
TP2
TP1
P9
LED1
P11
TP3
TP4
P10
P14
R12
P12
P13
P1
R8
P2
C5
P3
R9
R3
P5
Q1
R6
R10
C1
C2
C3
B3
R11
B2
B1
P4
R4
C4
R7
R5
P6

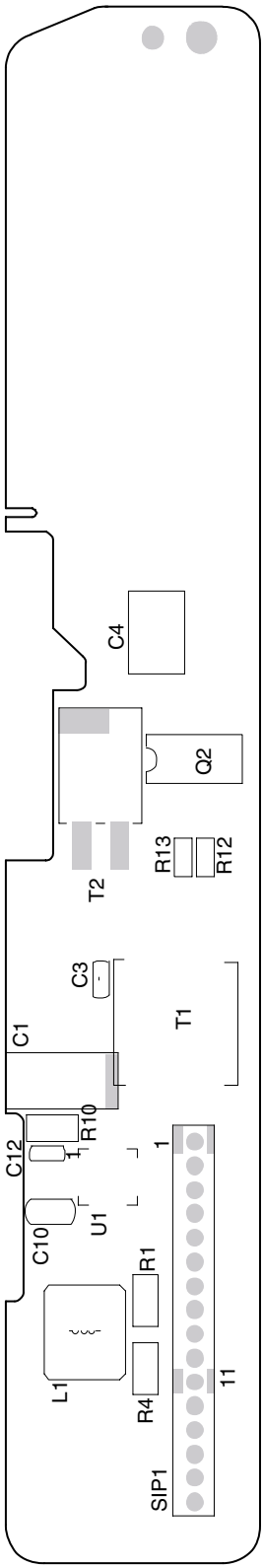
6) USB_BOTTOM



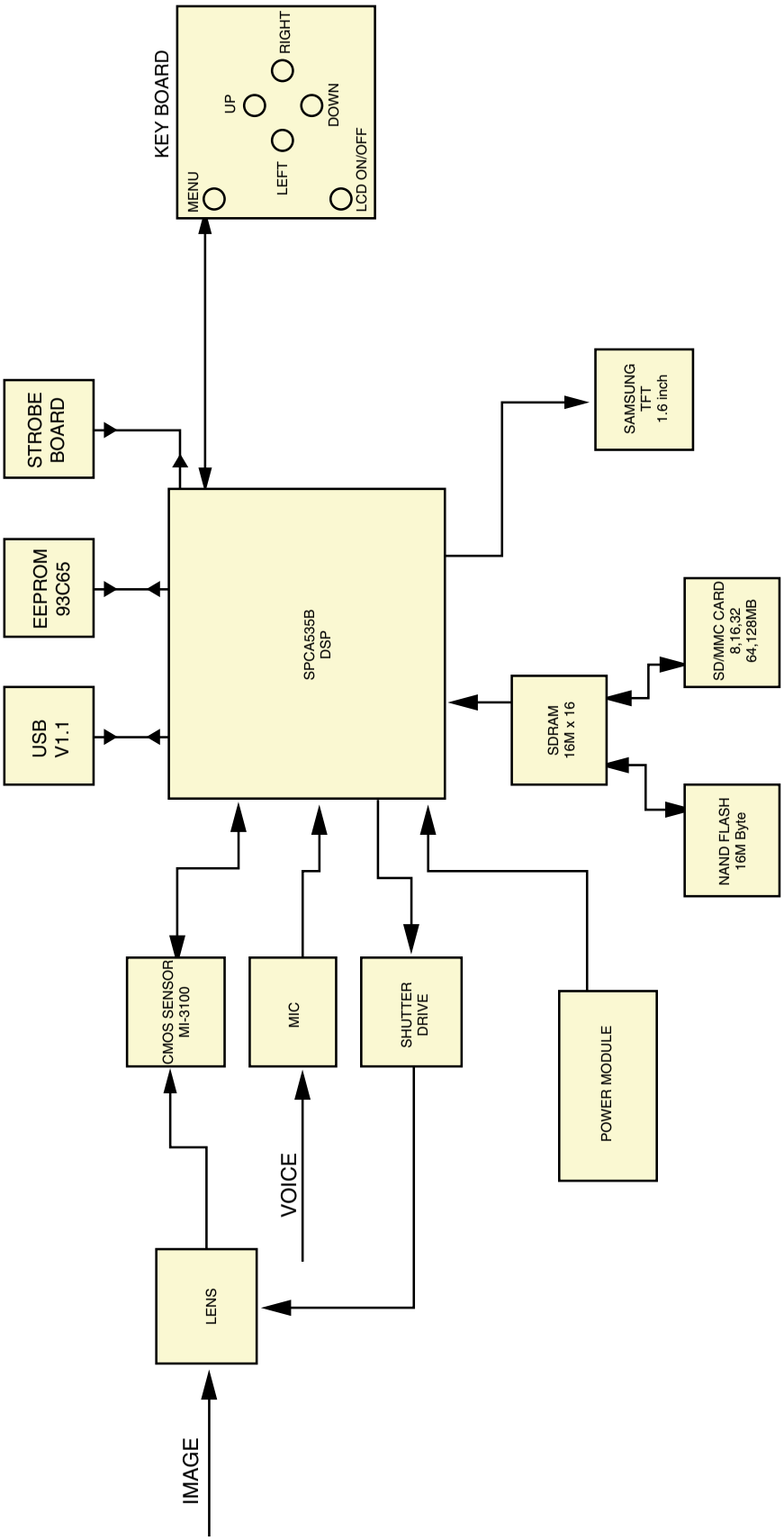
7) FLASH_TOP


C6
R15
C8
R14
R16
R17
ESD4
ESD3
R11
C9
C7
R2
TP6
MIC1
D2
C5
SW2
R8
P13
P5
D1
P2
P3
R6
Q1
C11
R19
P12
R18
TP1
SW1
P11
R20
C2
R1
R5
P10
P7
P1
P8
P4
R9
P6
P9
D3
ESD2
ESD1
G_ESD

8) FLASH_BOTTOM

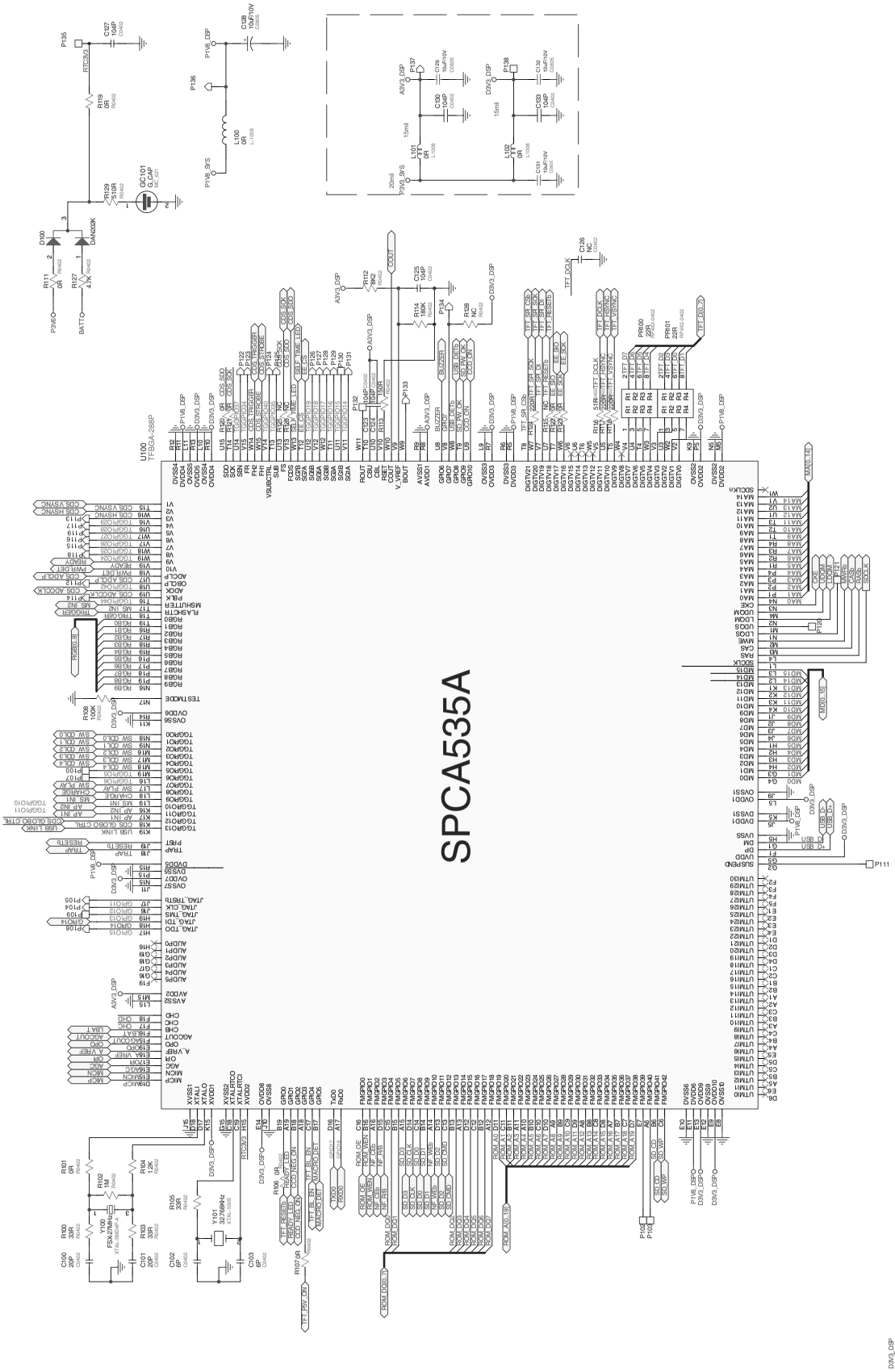


1. BLOCK DIAGRAM

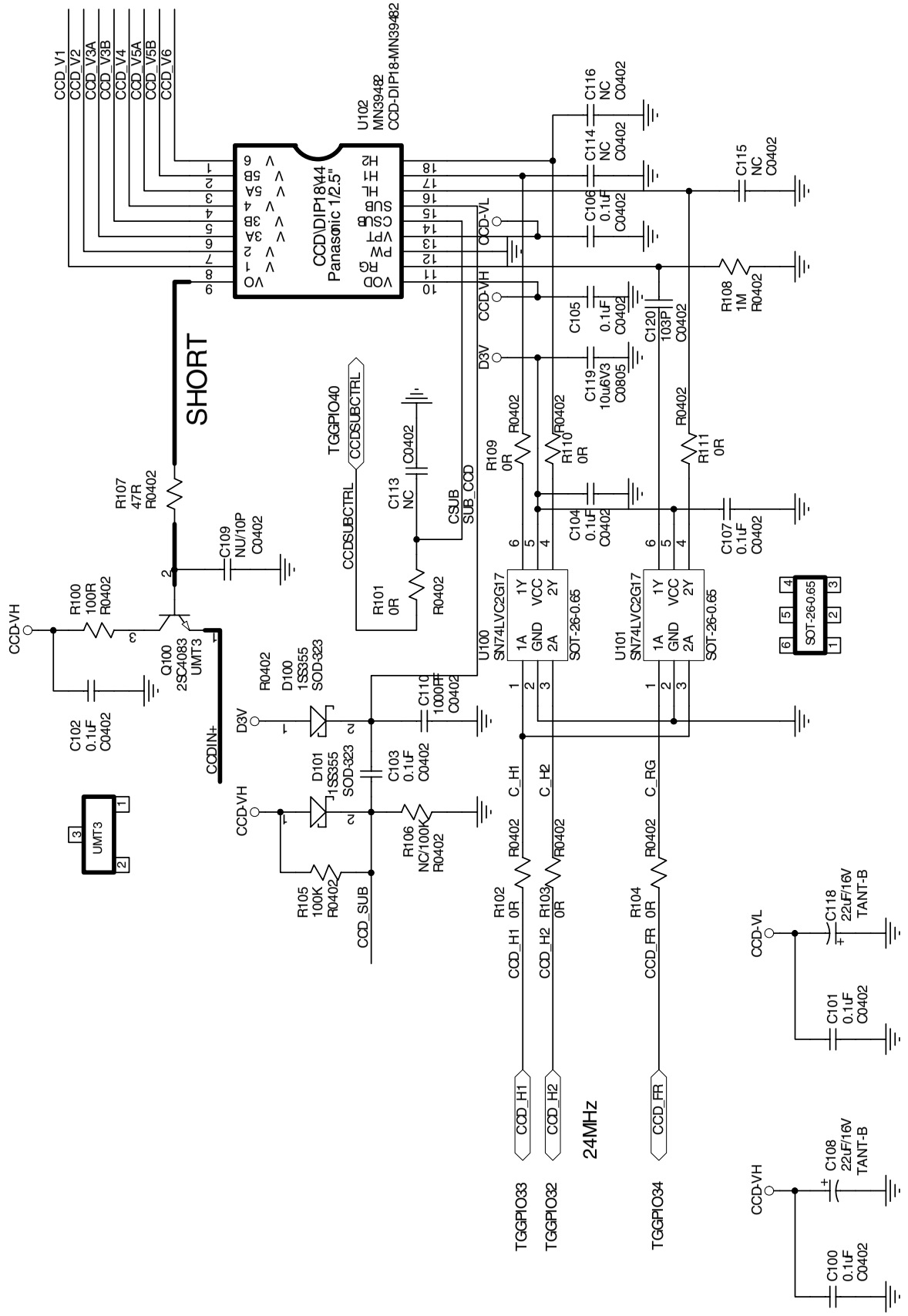


2. CIRCUIT DIAGRAM

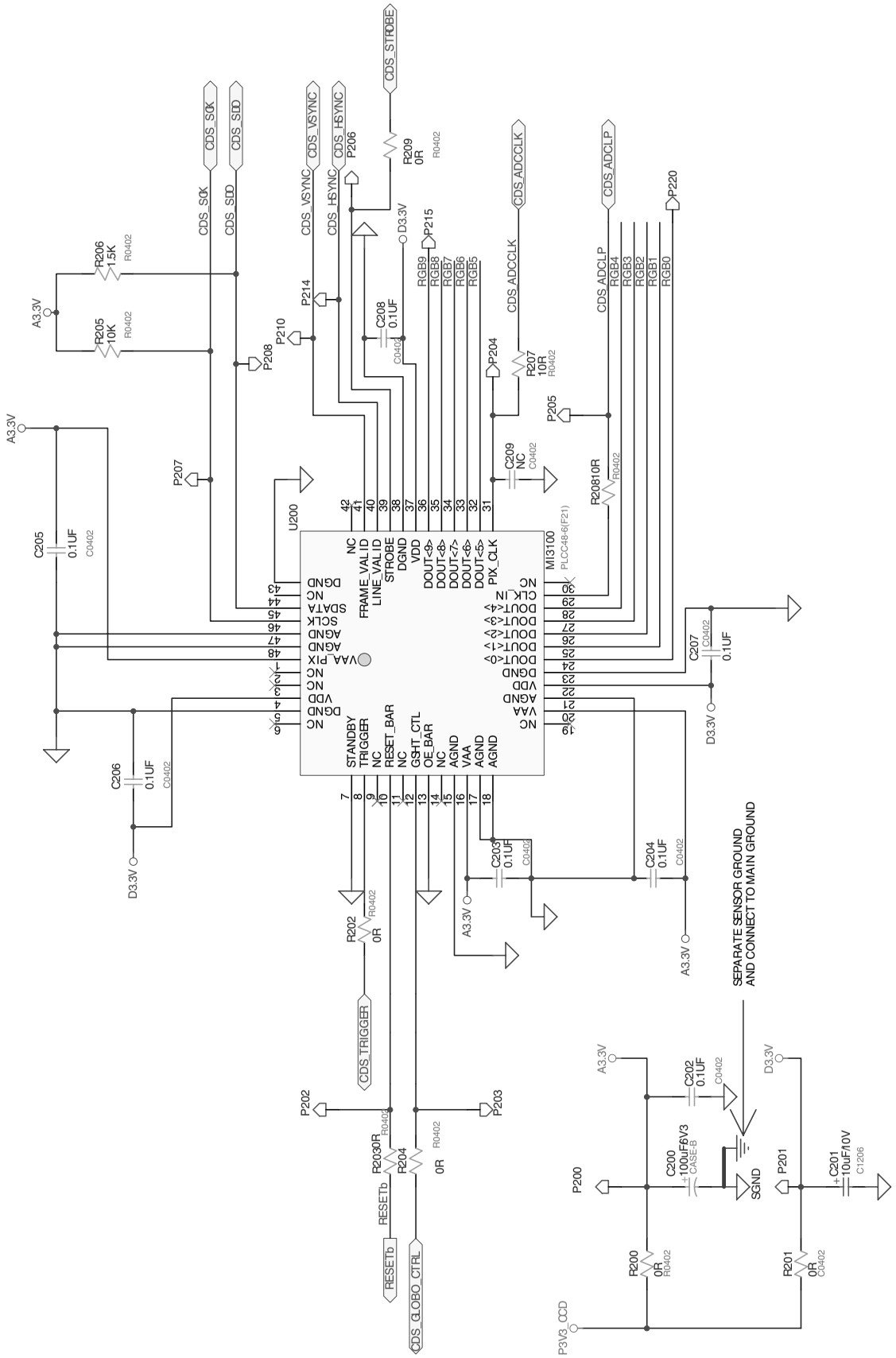
1) SPCA535A DSP



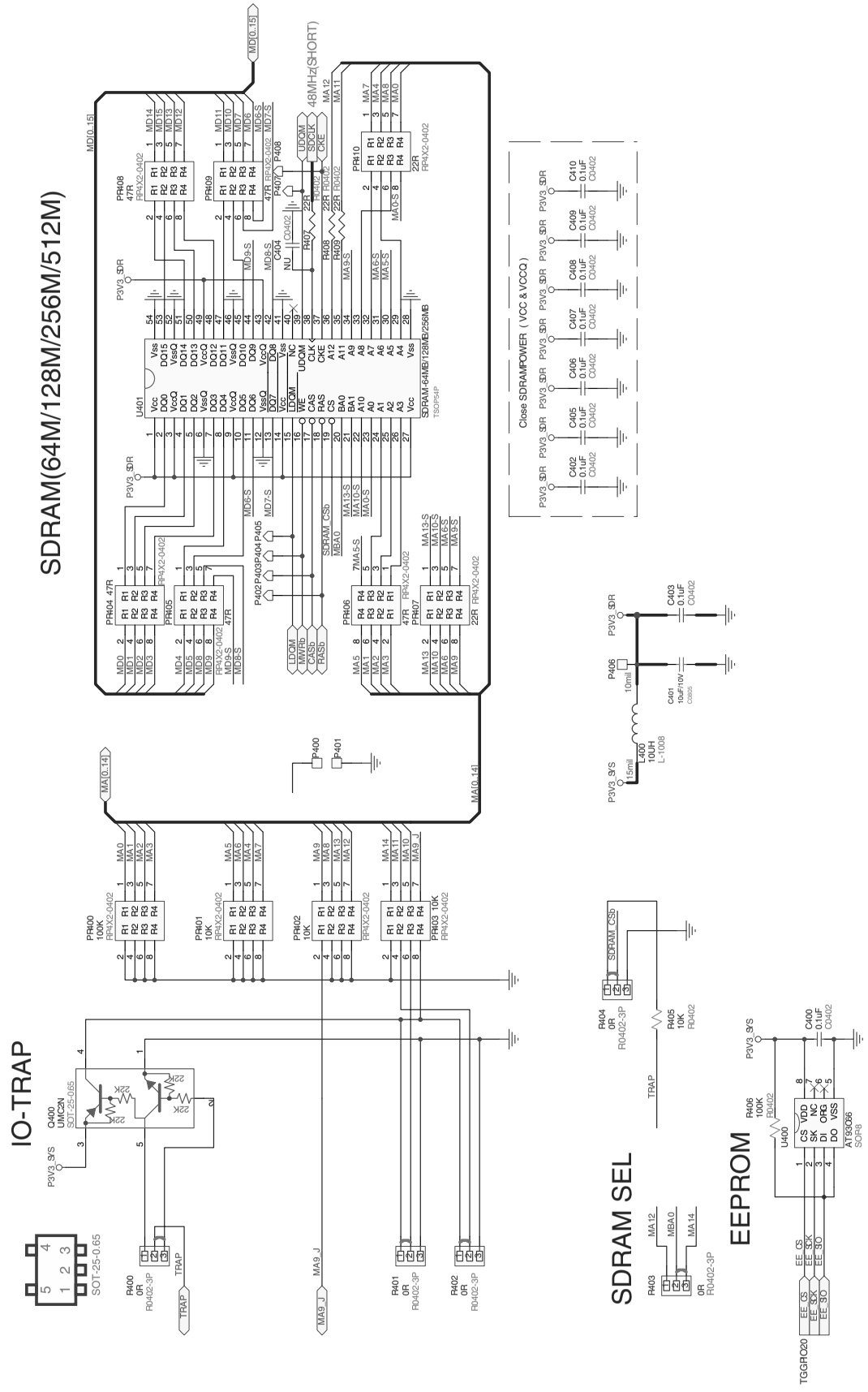
2) CCD_MN39482



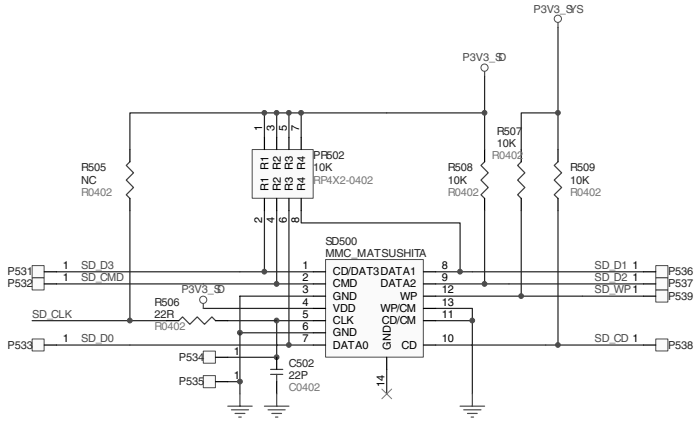
3) Image Peripheric circuit



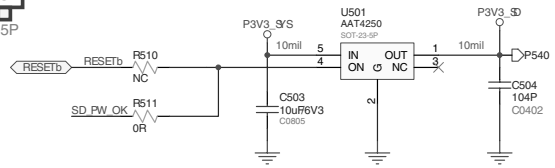
4) SDRAM_TRAP_EEPROM

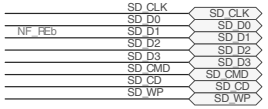


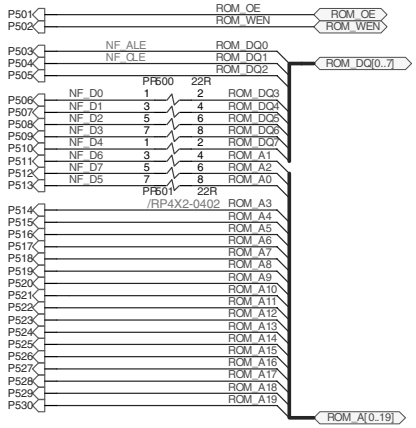
5) NandFlash-SD



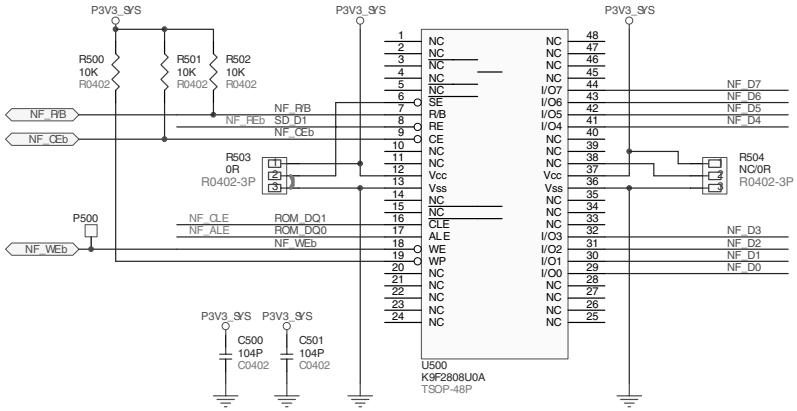
SD CONNECTOR



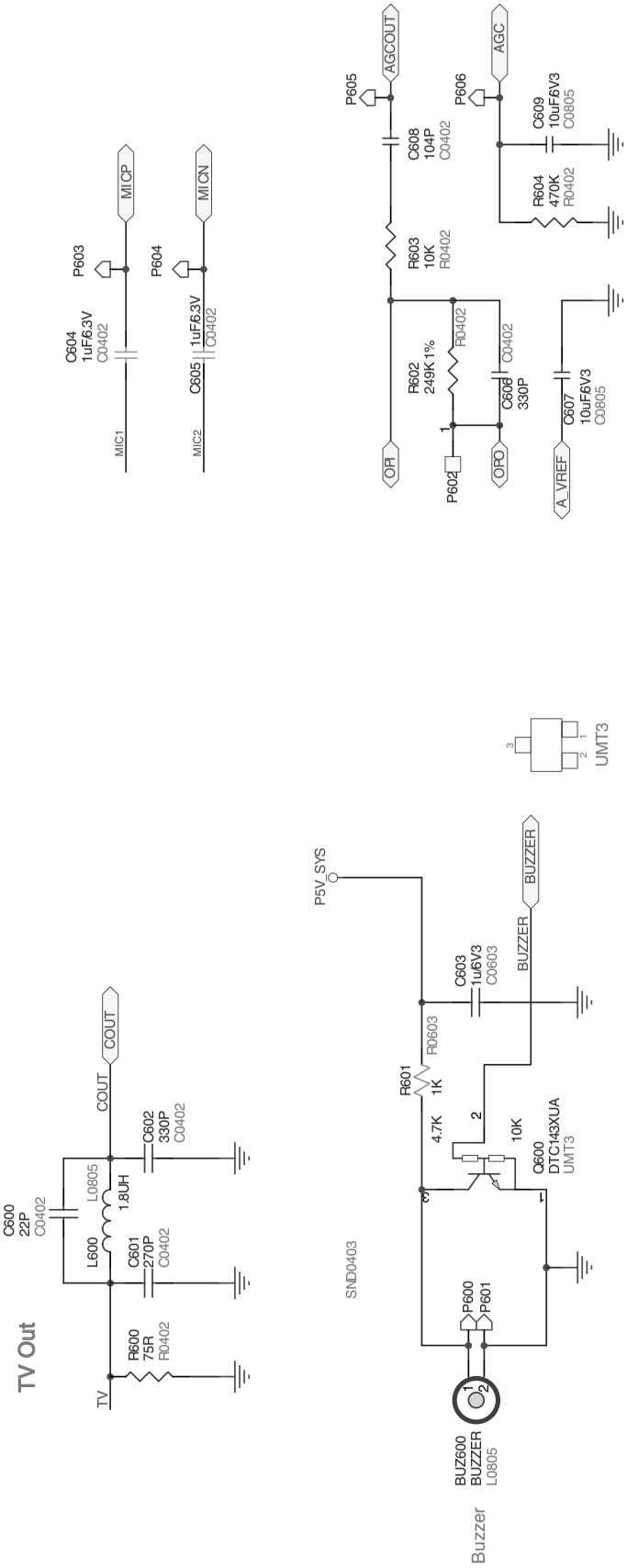




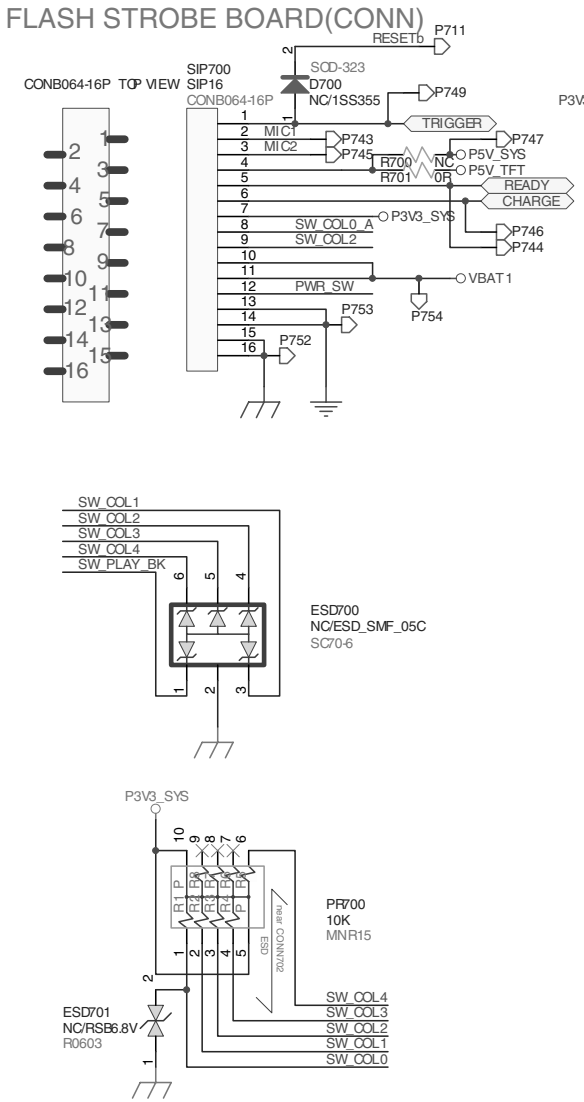
NAND FLASH (16M BYTE~128M)

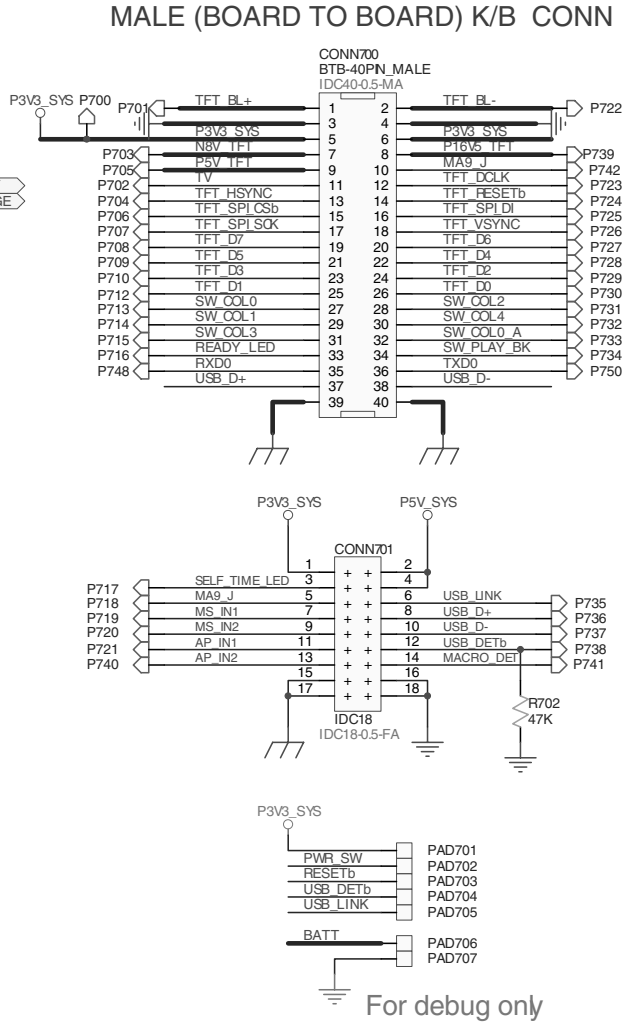


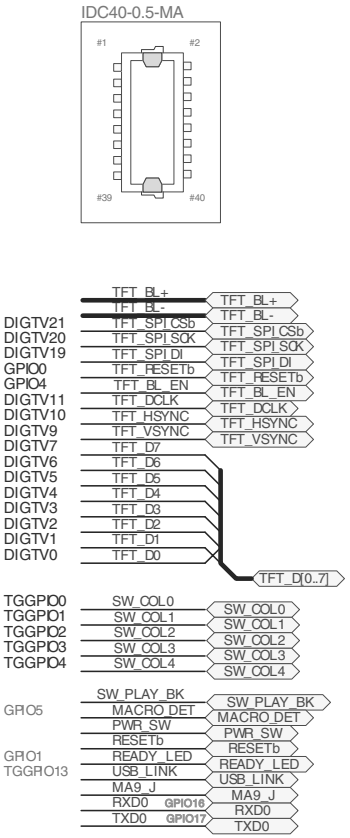
6) MIC_TVOUT_BUZZER

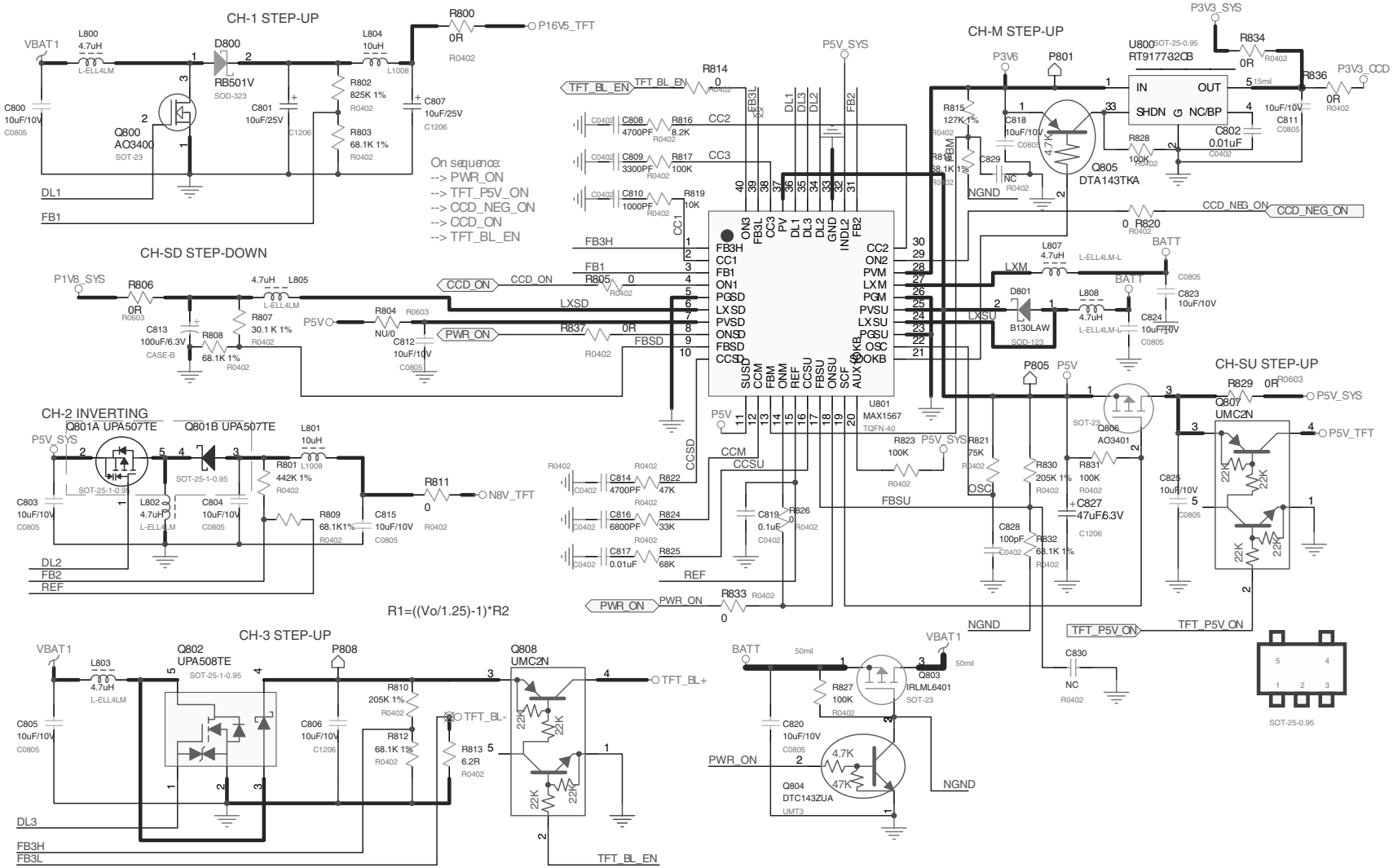


7) INTERFACE IO

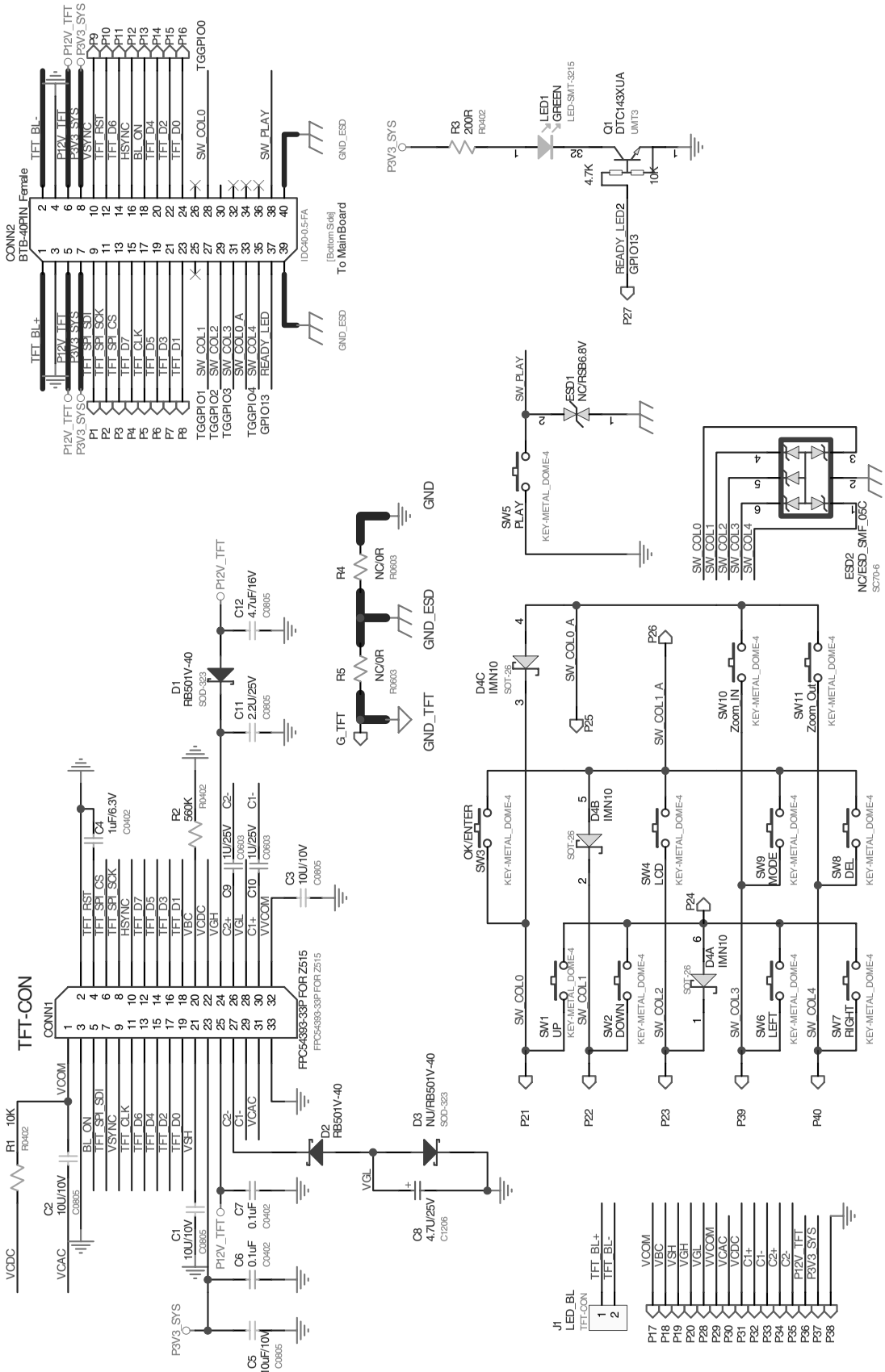




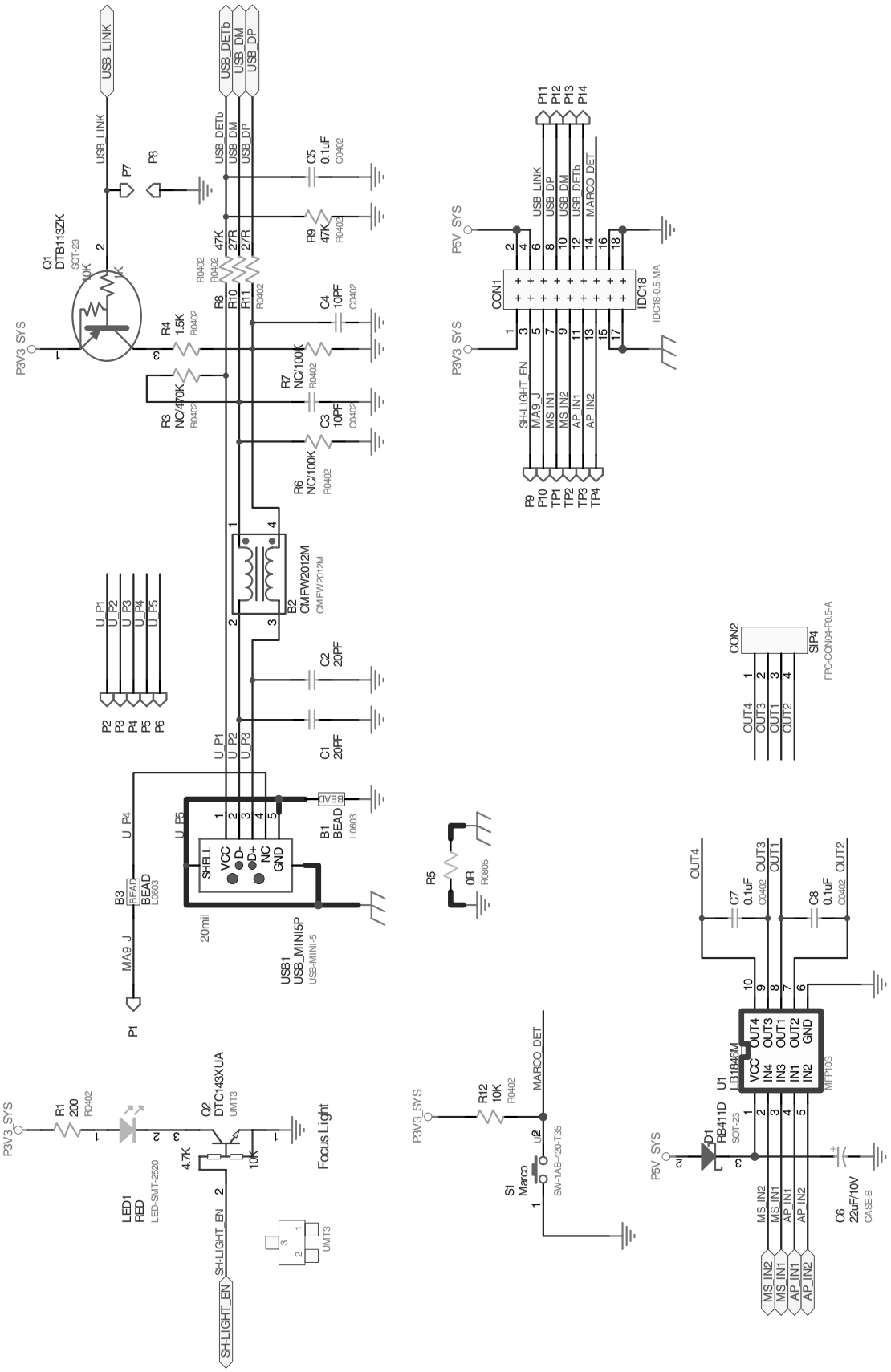



CH-1 STEP-UP
CH-SD STEP-DOWN
CH-2 INVERTING
CH-3 STEP-UP
CH-M STEP-UP
CH-SU STEP-UP
On sequence:
--> PWR_ON
--> TFT_P5V_ON
--> CCD_NEG_ON
--> CCD_ON
--> TFT_BL_EN
U801 MAX1567 TQFN-40
U800 RT9173-32CB
Q800 AO3400
Q801A UPA507TE
Q801B UPA507TE
Q802 UPA508TE
Q803 IRLML6401
Q804 DTC143ZUA
Q805 DTA143TKA
Q806 AO3401
Q807 UMC2N
Q808 UMC2N
D800 RB501V
D801 B130LAW
R1=((Vo/1.25)-1)*R2
R810=((10/1.225)-1*R812=476.7 KOhm(TFT_BL+ :=10V)

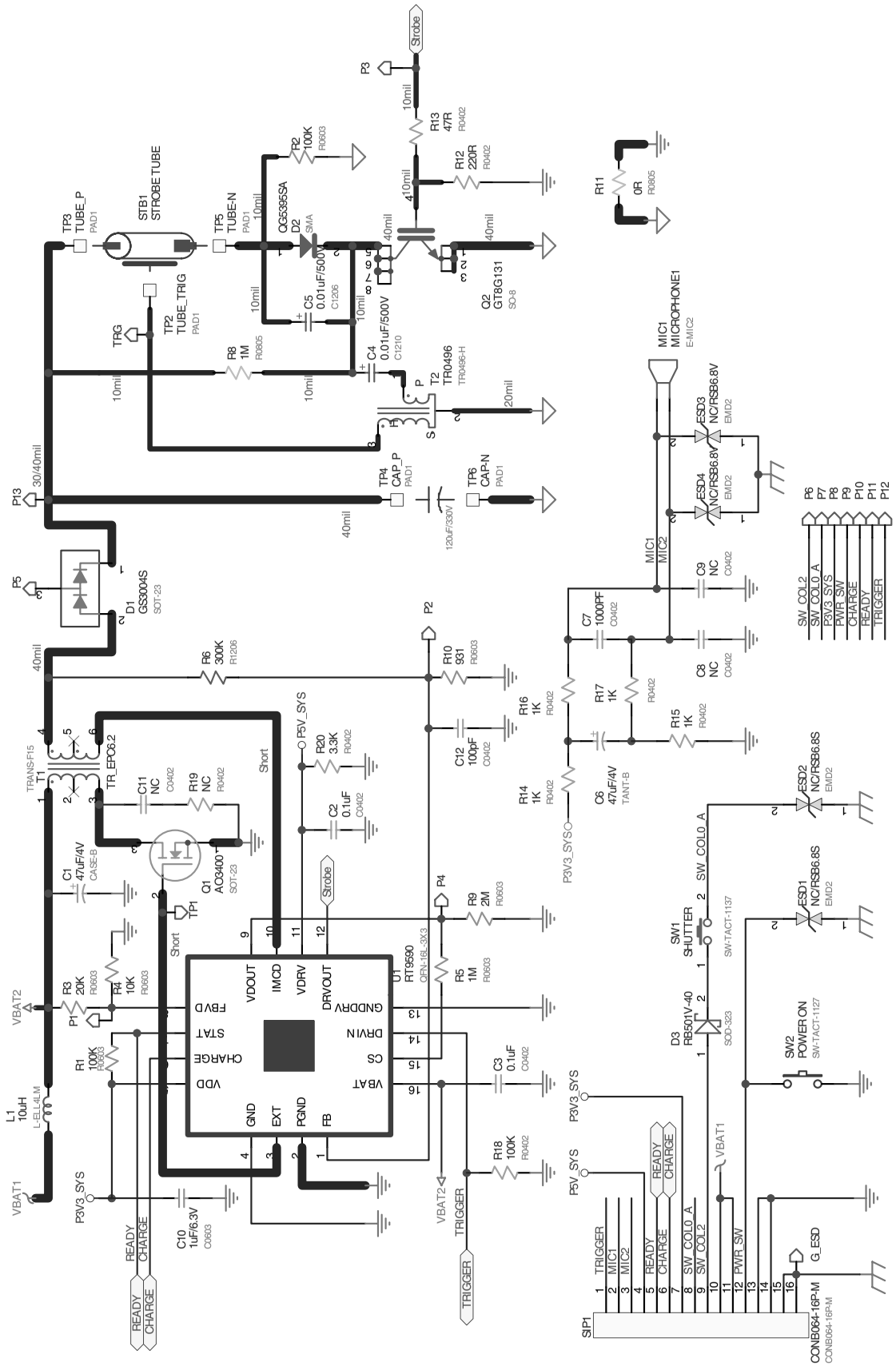
9) CASIO 1.8 inch 3G Panel



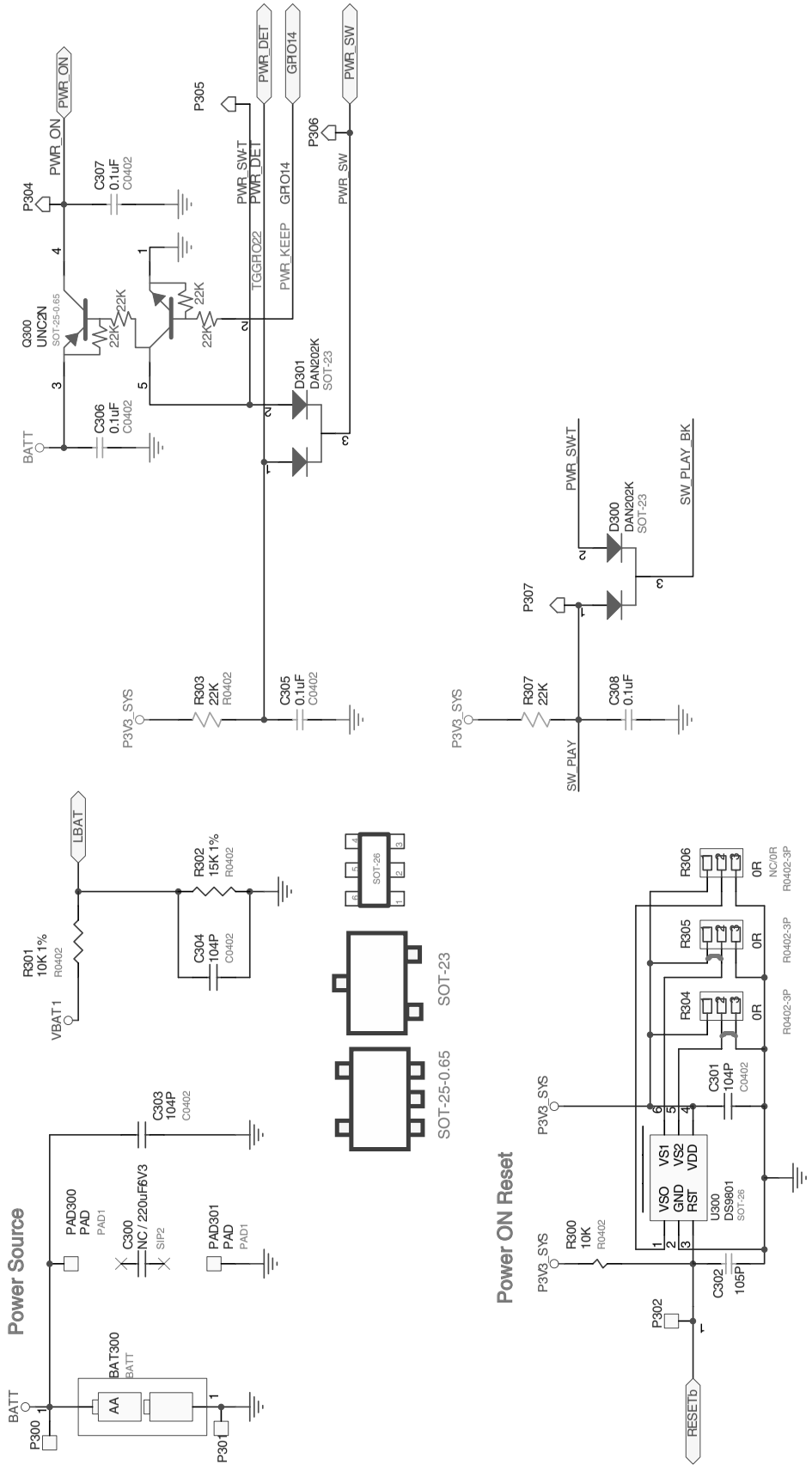
10) LENS_USB


USB_LINK
USB_DETb
USB_DM
USB_DP
Q1
DTB113ZK
SOT-23
P3V3_SYS
R4
1.5K
R3
NC/470K
R7
NC/100K
R6
NC/100K
R8
47K
R10
27R
R11
27R
R9
47K
C5
0.1uF
C4
10PF
C3
10PF
C2
20PF
C1
20PF
B2
CMFW2012M
B1
BEAD
B3
BEAD
U_P1
U_P2
U_P3
U_P4
U_P5
P1
P2
P3
P4
P5
P6
P7
P8
MA9_J
USB1
USB_MINI5P
USB-MINI-5
20mil
SHELL
VCC
D-
D+
NC
GND
P5V_SYS
CON1
IDC18
IDC18-0.5-MA
SH-LIGHT_EN
MA9_J
MS_IN1
MS_IN2
AP_IN1
AP_IN2
MARCO_DET
P9
P10
TP1
TP2
TP3
TP4
P11
P12
P13
P14
R5
0R
CON2
SIP4
FPC-CON04-P0.5-A
OUT4
OUT3
OUT1
OUT2
R1
200
LED1
RED
LED-SMT-2520
Q2
DTC143XUA
UMT3
4.7K
10K
FocusLight
R12
10K
S1
Marco
SW-1AB-420-T35
U1
LB1846M
MFP10S
VCC
IN4
IN3
IN1
IN2
GND
D1
RB411D
C7
0.1uF
C8
0.1uF
C6
22uF/10V
CASE-B

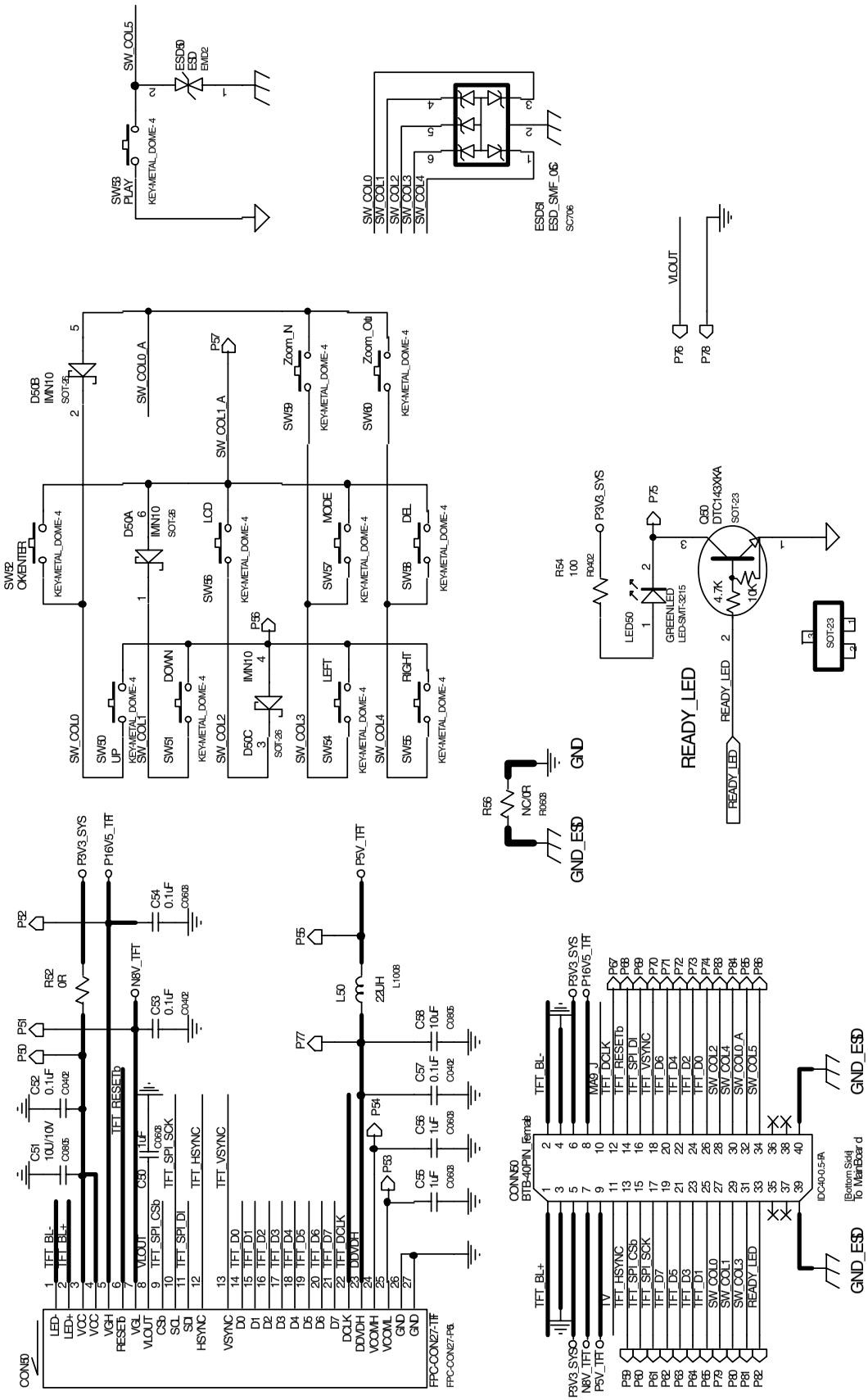
11) Shutter_Strobe



12) RESET&PWR_SOURCE



13) KEY


SW53
PLAY
KEY-METAL_DOME-4
SW_COL5
ESD60
ESD
EMD2
SW_COL0
SW_COL1
SW_COL2
SW_COL3
SW_COL4
ESD58
ESD_SMF_06C
SC706
SW52
OK/ENTER
SW50
UP
SW51
DOWN
SW56
LCD
SW54
LEFT
SW55
RIGHT
SW57
MODE
SW58
DEL
SW59
Zoom_N
SW60
Zoom_Out
D50B
IMN10
D50A
IMN10
D50C
IMN10
P55
P57
SW_COL0_A
SW_COL1_A
P76
P78
VLOUT
R54
100
R0402
P3V3_SYS
LED50
GREENLED
LED-SMT-3215
P75
Q50
DTC143XKA
SOT-23
4.7K
10K
READY_LED
R56
NC/0R
R0603
GND_ESD
GND
P82
R52
0R
C54
0.1uF
C0603
P3V3_SYS
P16V5_TFT
C52
0.1uF
C0402
C51
10U/10V
C0805
P51
P50
C53
0.1uF
C0402
N8V_TFT
C50
1uF
C0603
P55
L50
22UH
L1008
P5V_TFT
P77
C58
10uF
C0805
C57
0.1uF
C0402
C56
1uF
C0603
C55
1uF
C0603
P54
P53
TFT_RESETb
TFT_SPI_CSb
TFT_SPI_SCK
TFT_SPI_DI
TFT_HSYNC
TFT_VSYNC
TFT_D0
TFT_D1
TFT_D2
TFT_D3
TFT_D4
TFT_D5
TFT_D6
TFT_D7
TFT_DCLK
DDVDH
VCOMH
VCOML
GND
CON50
LED-
LED+
VCC
VCC
VGH
RESETb
VGL
VLOUT
CSb
SCL
SDI
HSYNC
VSYNC
D0
D1
D2
D3
D4
D5
D6
D7
DCLK
DDVDH
VCOMH
VCOML
GND
GND
FPC-CONN27-TFT
FPC-CONN27-P6
CONN50
BTB-40PIN_female
TFT_BL-
TFT_BL+
P3V3_SYS
P16V5_TFT
MA9_J
TFT_DCLK
TFT_RESETb
TFT_SPI_DI
TFT_VSYNC
TFT_D6
TFT_D4
TFT_D2
TFT_D0
SW_COL2
SW_COL4
SW_COL0_A
SW_COL5
TV
TFT_HSYNC
TFT_SPI_CSb
TFT_SPI_SCK
TFT_D7
TFT_D5
TFT_D3
TFT_D1
SW_COL0
SW_COL1
SW_COL3
READY_LED
P3V3_SYS
N8V_TFT
P5V_TFT
IDC40-0.5-FA
[Bottom Side]
To MainBoard
GND_ESD
GND_ESD

Ⅶ. TROUBLESHOOTING

1. Check List for repairing

1) When received

- Grasp customer's complaints exactely
- Check the product's condition of exterior view(damage by shock)
- Check the condition of battery and all kinds of cables(USB cable, AV cable, AC Adaptor)
- Check working condition with new battery or adaptor
  - ON/OFF
  - TELE/WIDE
  - Check if the image shows correctly with TFT LCD on
    (Turn on the TFT LCD and check if the image shows correctly)
  - Take a picture by pressing the shutter button
  - Turn the dial and check if modes change correctly
- Download from the camera by connecting it with PC and check if correctly
- Check if the image shows correctly with it connected to monitor

2) When repairing

- Check the connectors' condition to each PCB(dirt, short, assembly, lean, etc.)
- Change each doubtful PCB one after another to find out bad PCB
  - When doubtful of Main PCB Ass's, check the operating condition by assembling with a good Main PCB ass'y (Manufacture of checking machine for each bad PCB is in schedule)
- Refer to each page to fix bad items of each PCB
- Check the connections of each PCB before assembling covers and embarkation of the parts (soldering condition) with the naked eye
- Ateter assembling the camera, insert battery only when condition of the parts' embarkation and connection is all right (Inserting battery when the camera has inside-short will result in death or serious injury to the CPU and all parts)
- After setting the mode dial in position assemble the Top Cover and check if the dial nverts correctly

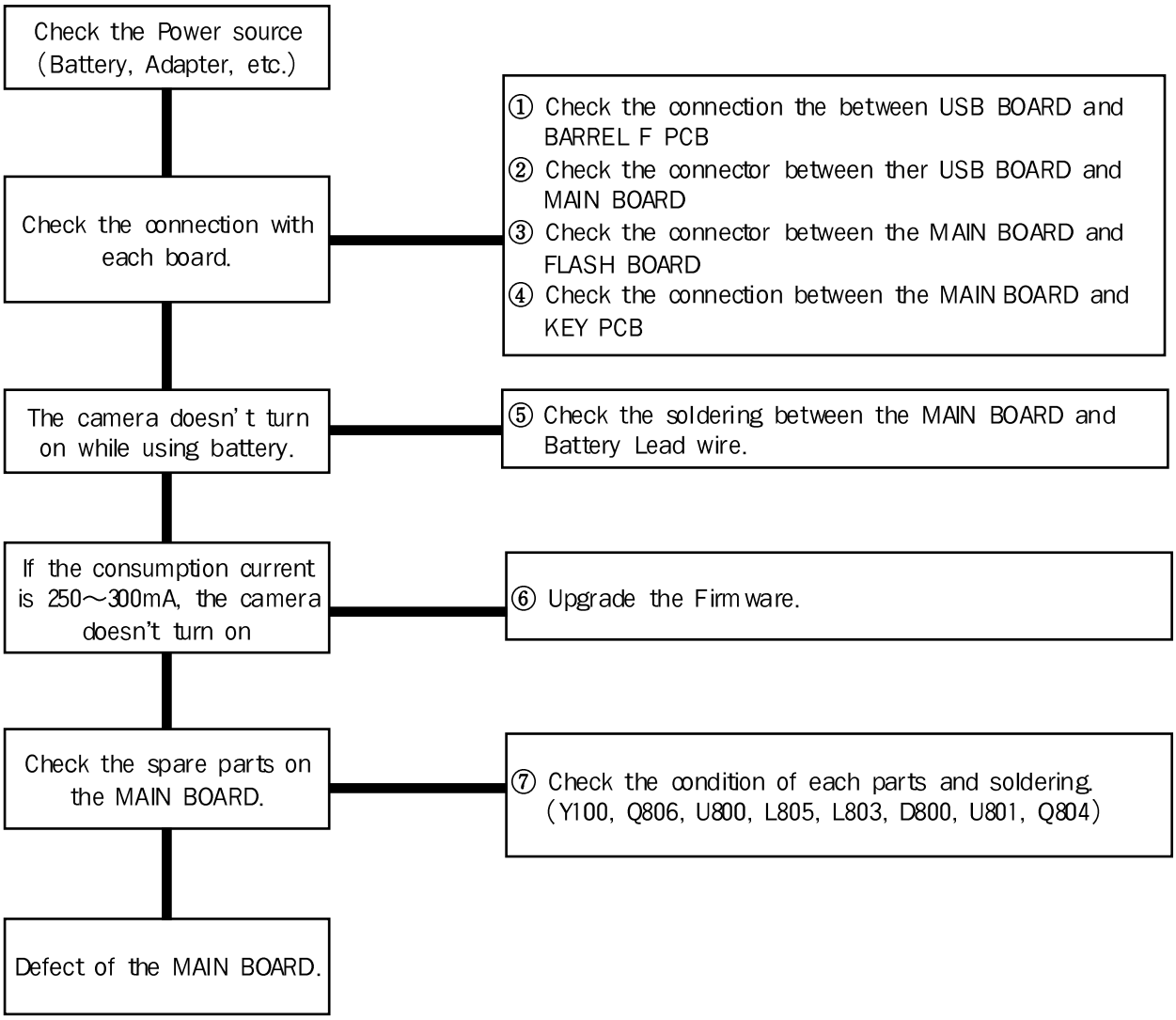
3) After repairing

3-1) A/S Check list for each item

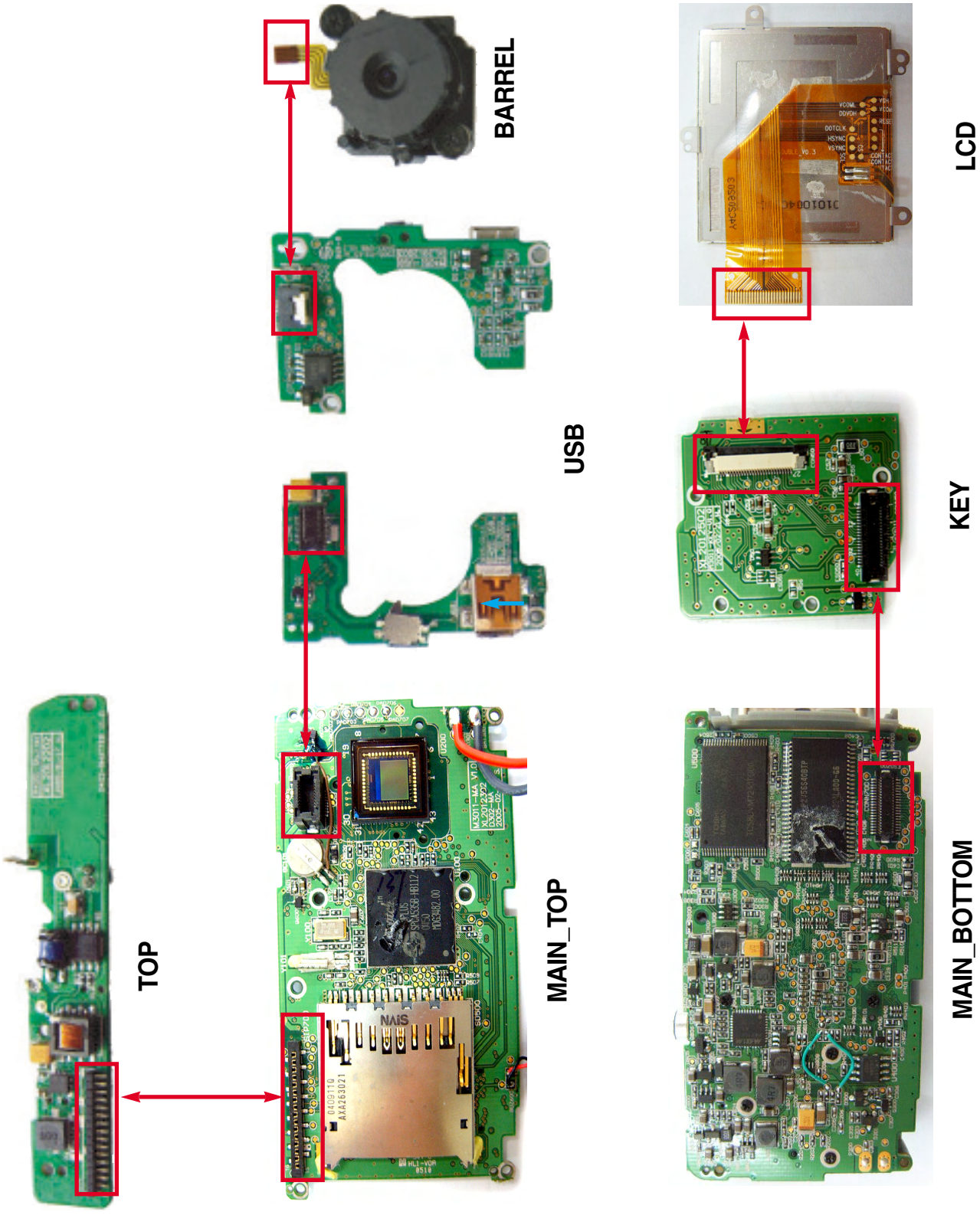
To judge inferior goods, begin with doubtful PCBs, replacing one after another to replace bad parts
ex.) When Main PCB ass'y is in trouble, try replacing it with inferior camera's fair Main PCB ass'y

2. Main Troubleshooting

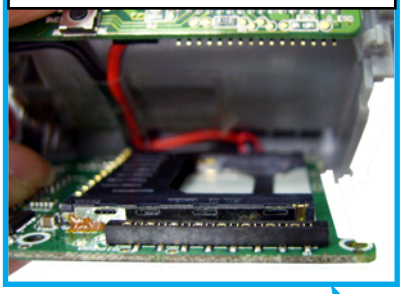
1) POWER ON DEFECT..


Check the Power source (Battery, Adapter, etc.)
Check the connection with each board.
① Check the connection the between USB BOARD and BARREL F PCB
② Check the connector between ther USB BOARD and MAIN BOARD
③ Check the connector between the MAIN BOARD and FLASH BOARD
④ Check the connection between the MAIN BOARD and KEY PCB
The camera doesn't turn on while using battery.
⑤ Check the soldering between the MAIN BOARD and Battery Lead wire.
If the consumption current is 250~300mA, the camera doesn't turn on
⑥ Upgrade the Firmware.
Check the spare parts on the MAIN BOARD.
⑦ Check the condition of each parts and soldering. (Y100, Q806, U800, L805, L803, D800, U801, Q804)
Defect of the MAIN BOARD.

■ CONNECTION

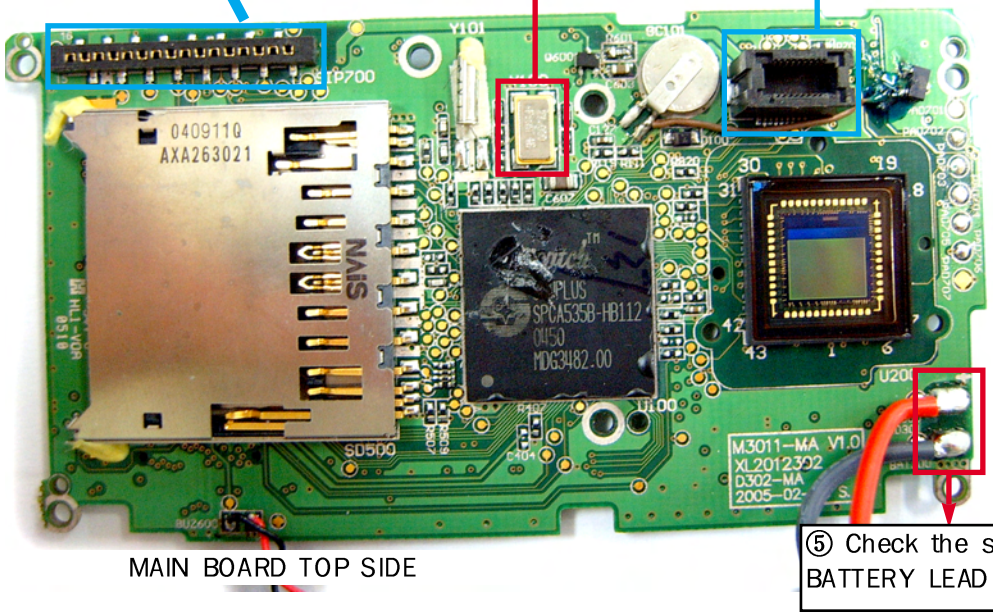


③ Check the connection between the MAIN BOARD and FLASH BOARD



⑦ Check that the frequency is 27MHZ.

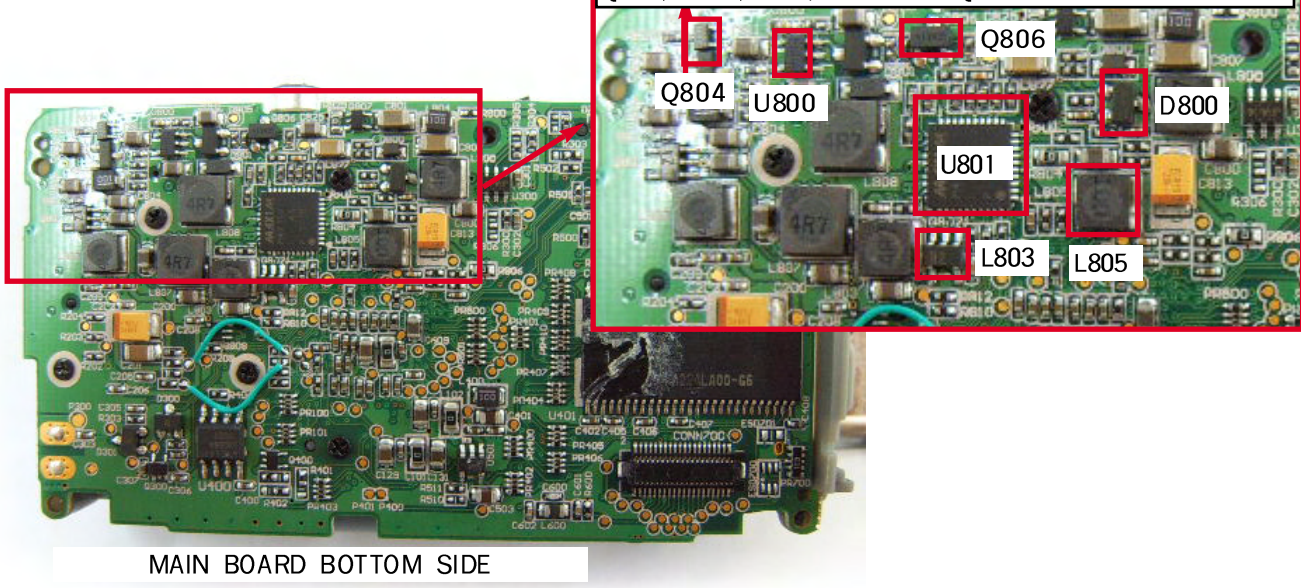
② Check the connection between the USB BOARD and MAIN BOARD.



MAIN BOARD TOP SIDE

⑤ Check the soldering of BATTERY LEAD WIRE.

⑦ Check the condition and soldering of D800, L805, Q806, U801, L803, U800 and Q804.



MAIN BOARD BOTTOM SIDE

2) Flash DEFECT

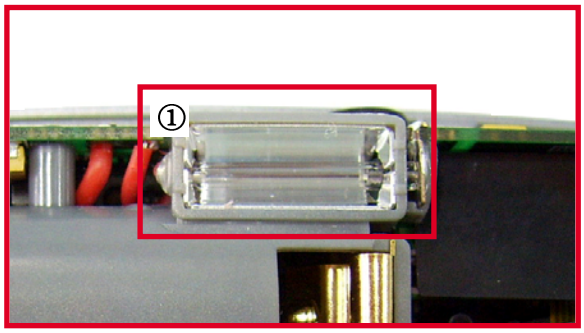
① Check the XE TUBE (Brockage)

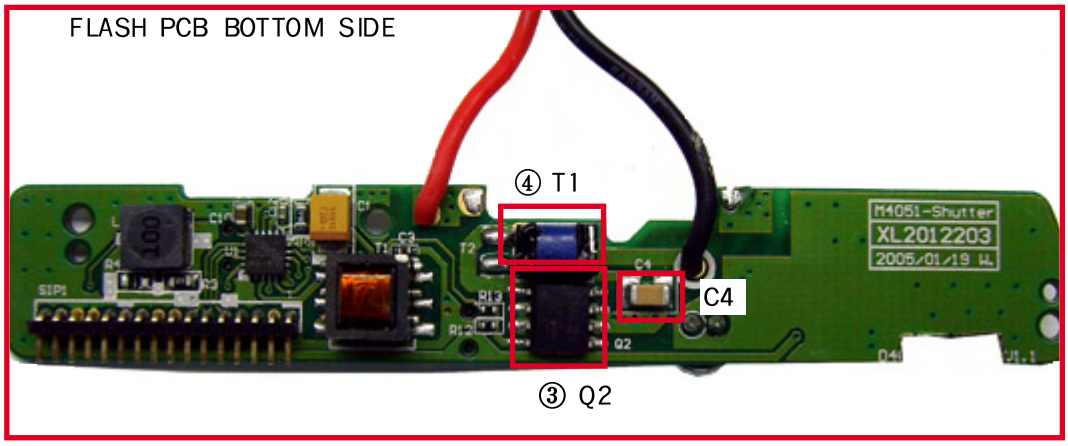
② Check the soldering between the MAIN BOARD and FLASH BOARD.

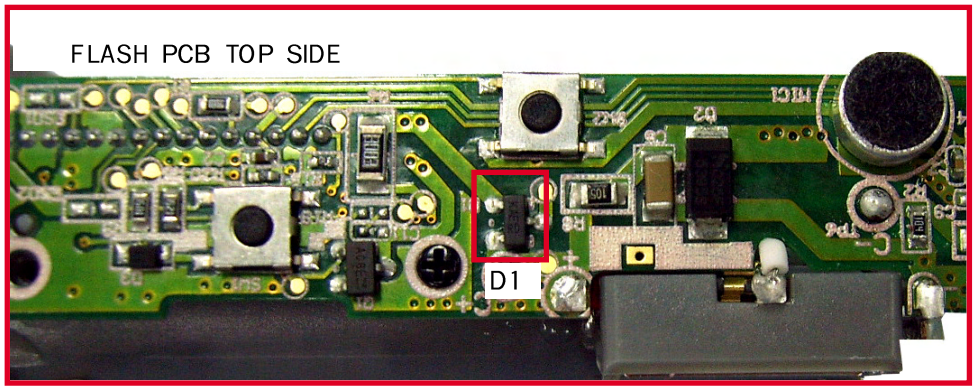
③ Check the IGBT(Q2)

④ Check the Trig coil((T2)

⑤ Check the parts on the Flash board C4, D1







3) Charge DEFECT

① Check the voltage of Main condenser (330V)

↓

② Check the connection between Main PCB and Flash PCB

↓

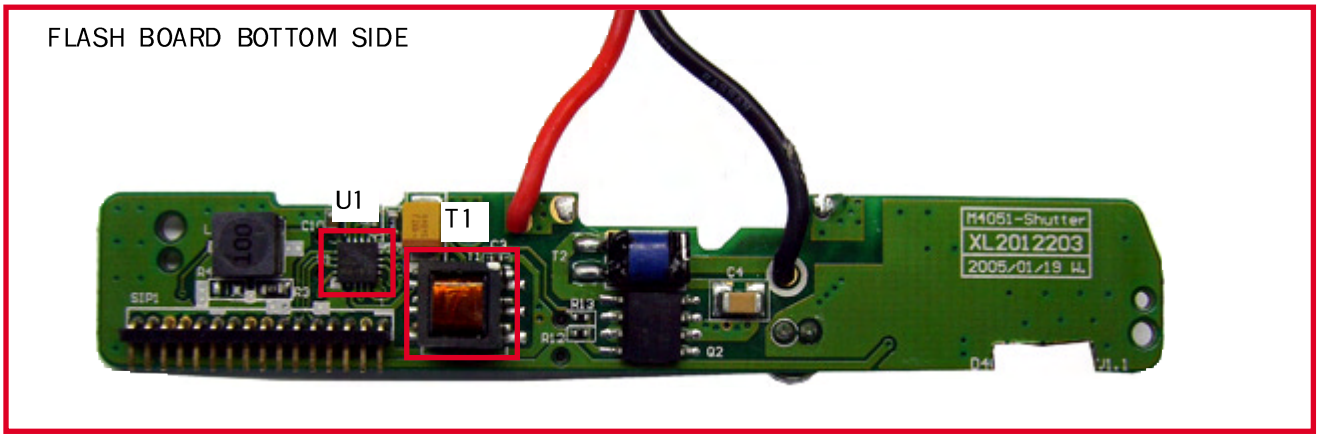
③ Check the parts on the Flash Board (U1, T1, Q1, D1)

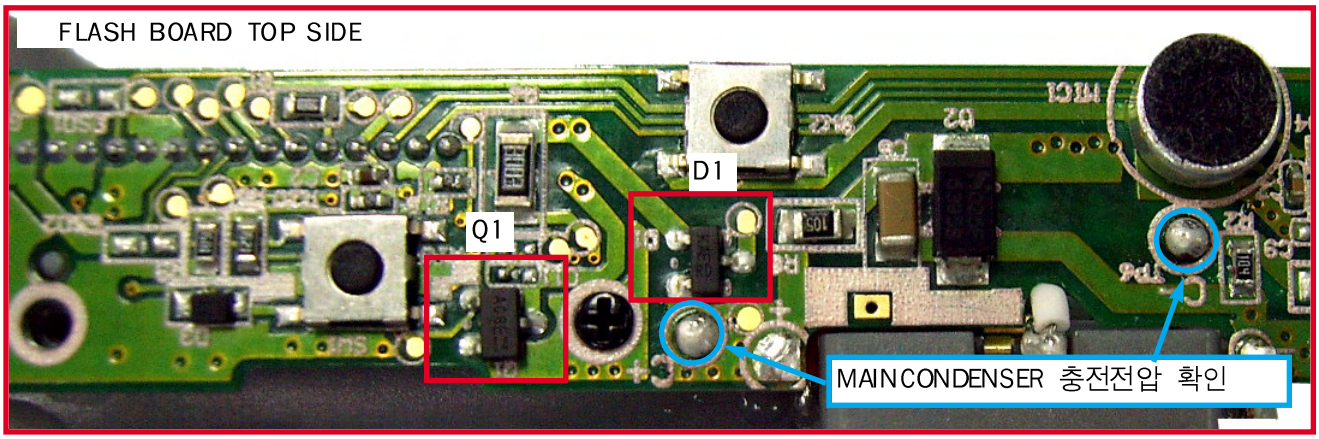
↓

④ If the charing is not finished, check the U1 and Q1

↓

⑤ Check the soldering of U1 and T1





4) DEFECT related to IMAGE

The normal image comes out while connecting TV

NO

Defect related to CMOS
If there is no image or noise on the LCD
① Check the soldering of CMOS
(Bad soldering or short)

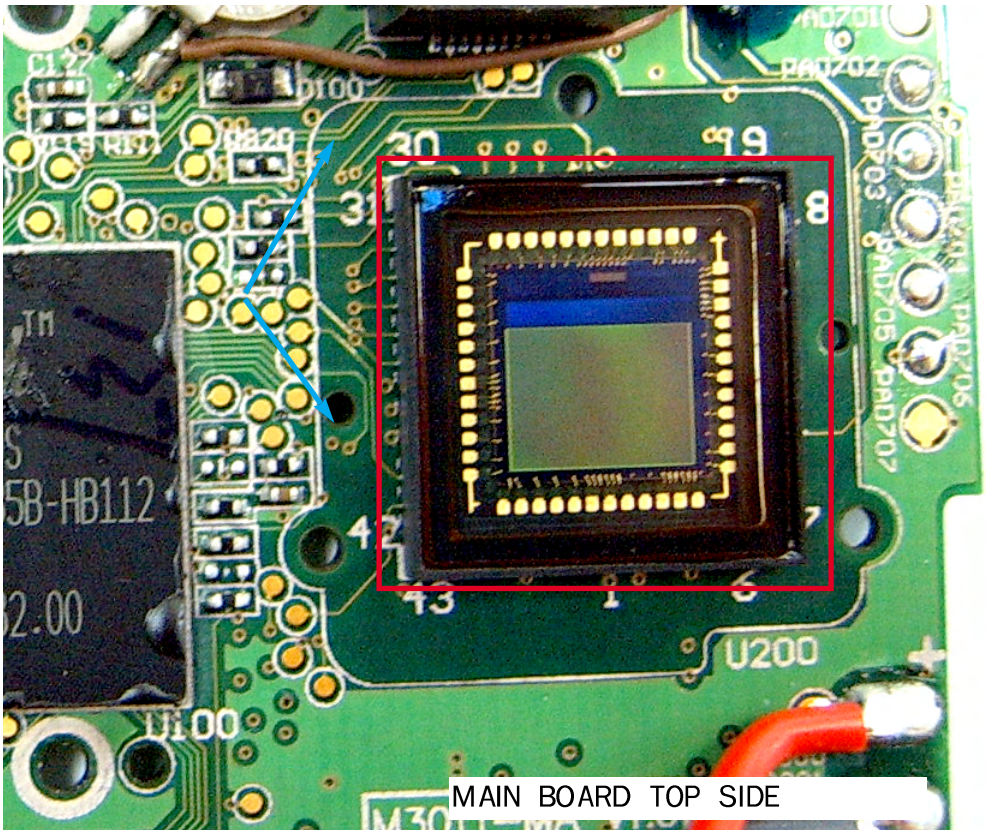
YES

⑤ Check connection between the KEY BOARD and TFT LCD

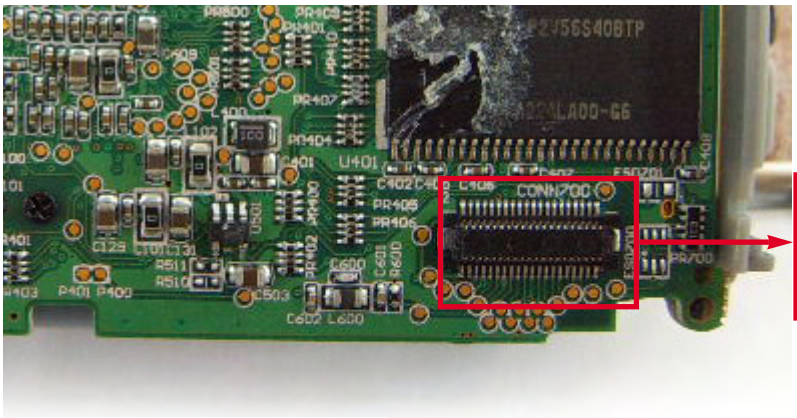
⑥ Check the soldering of BACK LIGHT

Defect of the CMOS or LCD

Check the soldering of CMOS

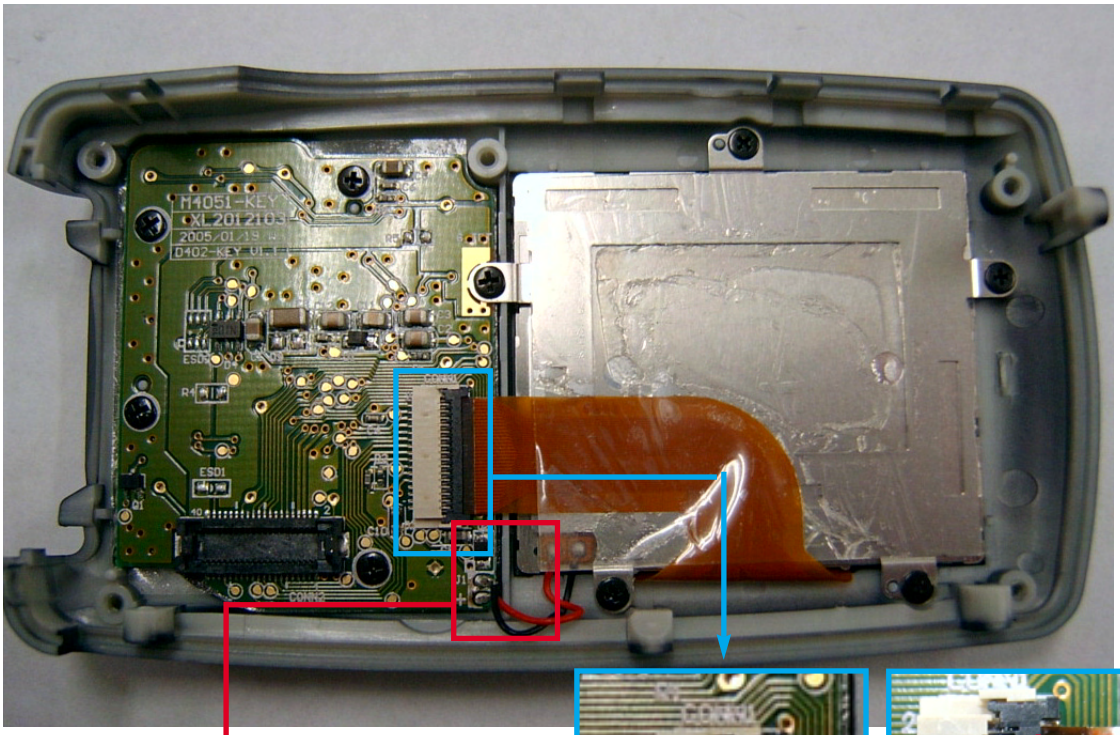


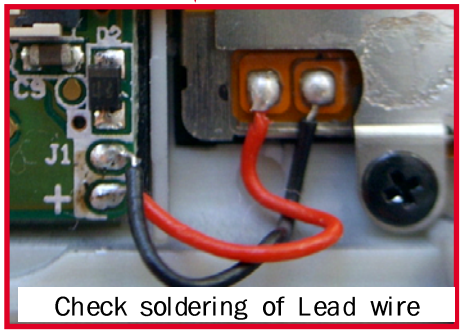
MAIN BOARD TOP SIDE



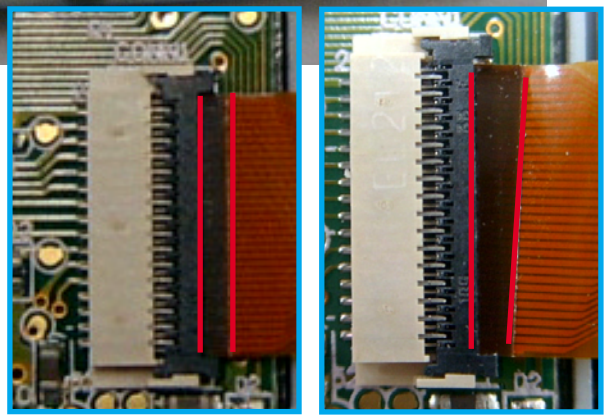
If there is no OSD on the LCD or image goes black,, check the CON700.

MAIN BOARD BOTTOM SIDE





Check soldering of Lead wire

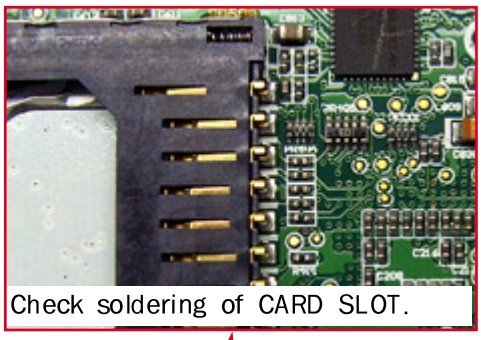


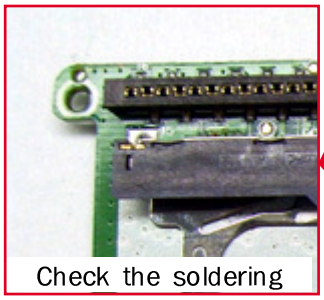
⑤ Check connection of the KEY BOARD and TFT LCD

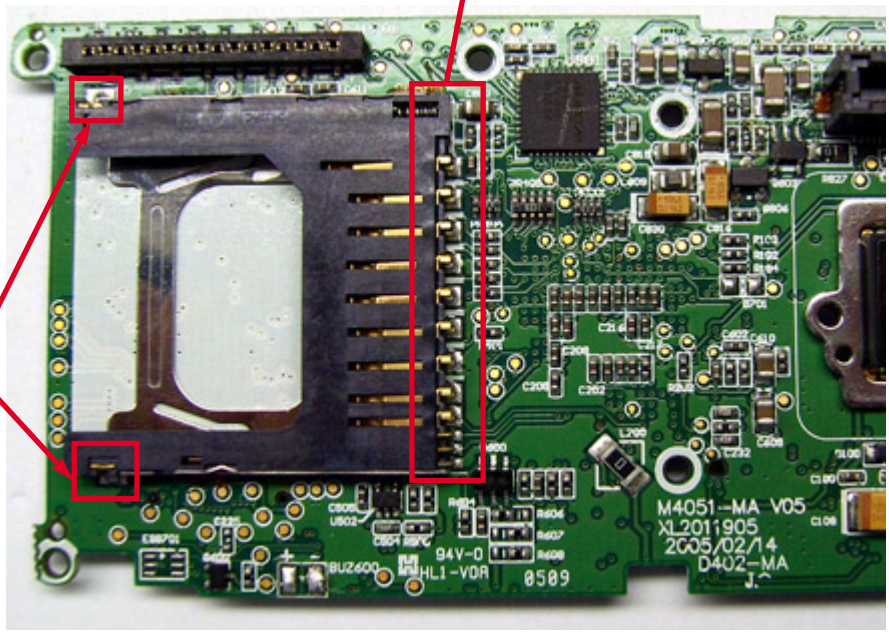
5) DEFECT related to CARD

When the defect is shown wiht card,
(Not recognized, the CARD LOCK sign doesn't show, etc.)

- Check the soldering of the CARD SLOT.
- Check the soldering whe the CARD LOCK is continually shown.

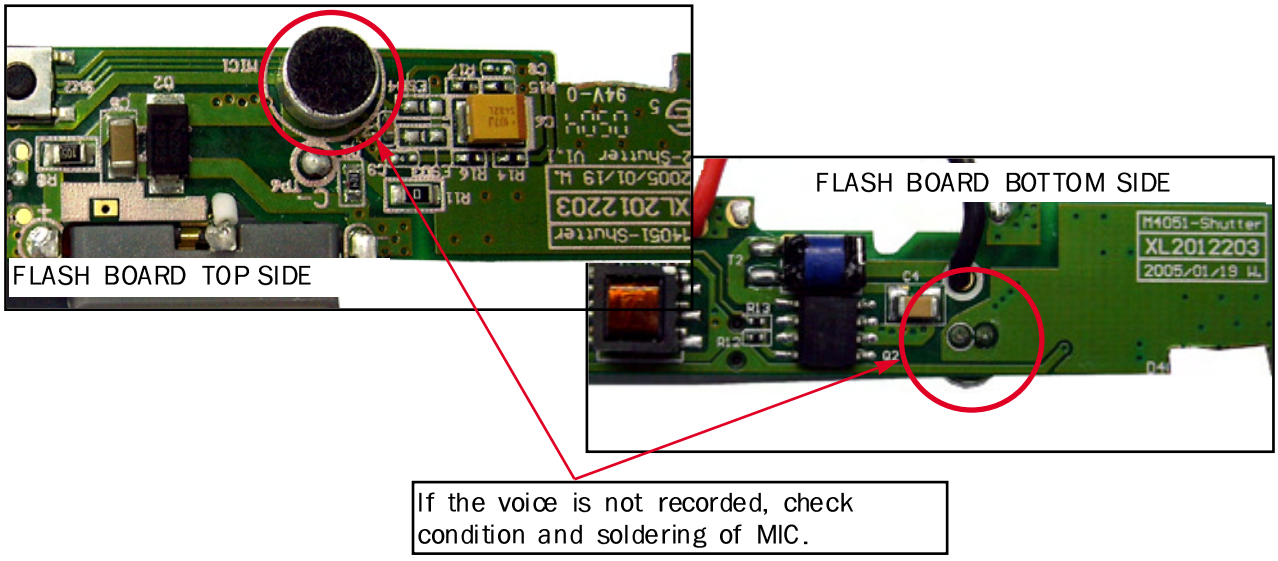

Check soldering of CARD SLOT.

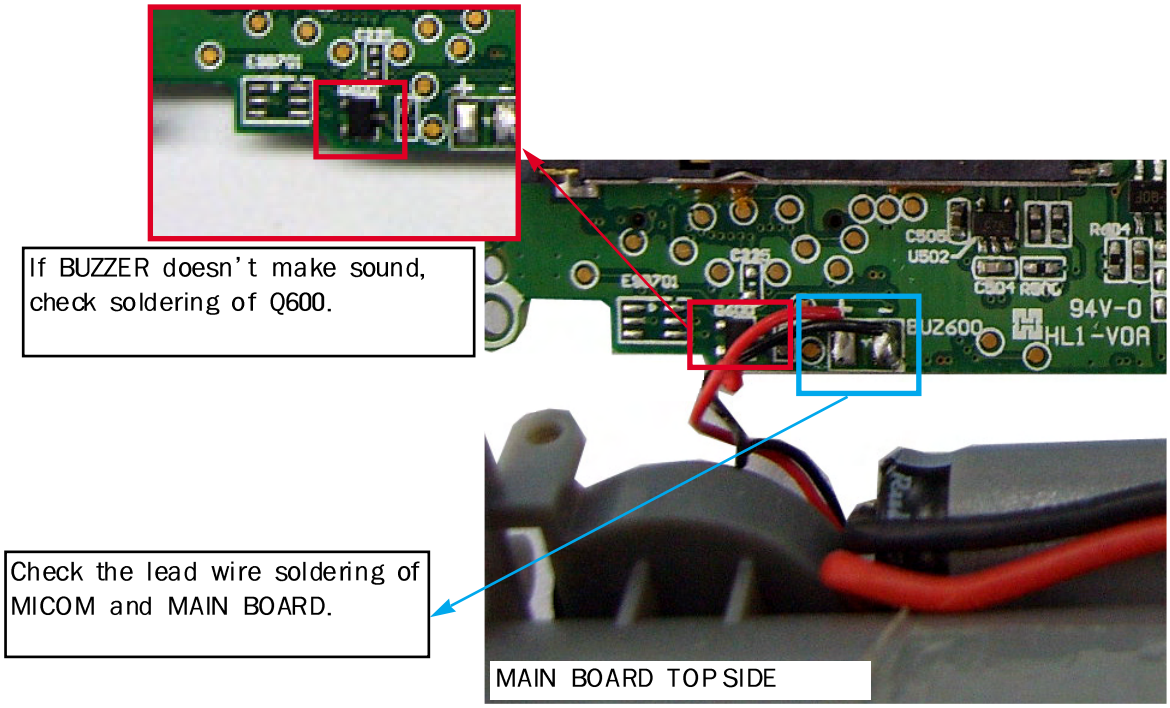

Check the soldering



6) DEFECT related to the AUDIO and MICOM

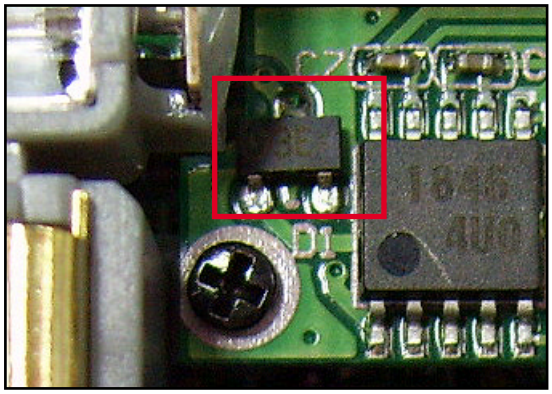
- Check the BUZZER condition in MENU that is ON or OFF.
- Caution with high temperature when do the soldering with MIC & BUZZER.



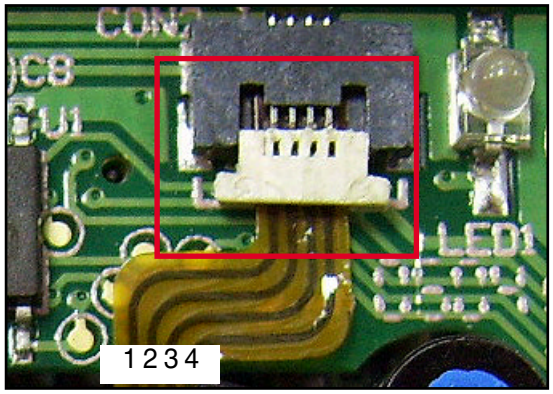

If BUZZER doesn't make sound, check soldering of Q600.
Check the lead wire soldering of MICOM and MAIN BOARD.
MAIN BOARD TOP SIDE

7) ETC.

- Apperture and shutter defects



Check the D1 on USB BOARD



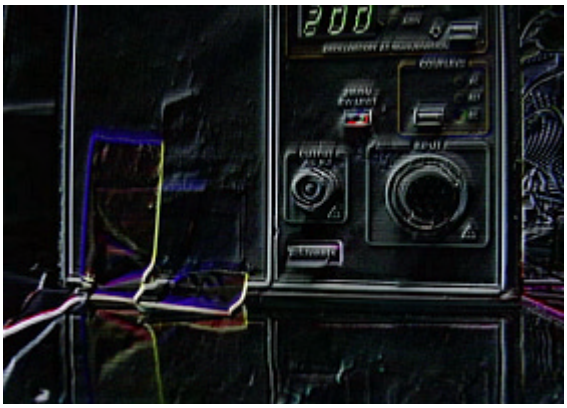
Check the connection CON2

- LENS F PCB

FPCB PIN NO.	SYMBOL	DESCRIPTION	REMARK
1	OUT1	IRIS	AP_IN1
2	OUT2	IRIS	AP_IN2
3	OUT3	M SHUTTER	MS_IN1
4	OUT4	M SHUTTER	MS_IN2

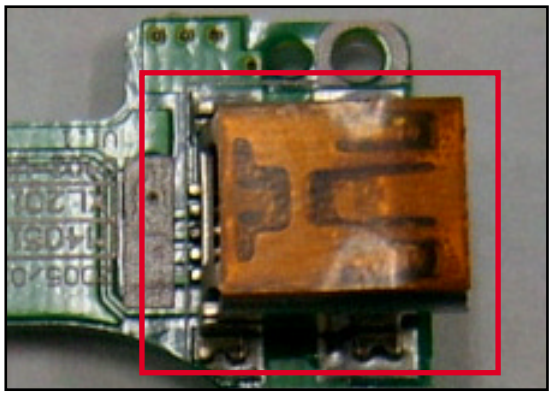
※ The effect of each pin

FPCB PIN NO.	EFFECT
1	Horigentle line is broken
2	The weired colored image is shown
3	Appeture doesn't work
4	Shuttehr doesn't work

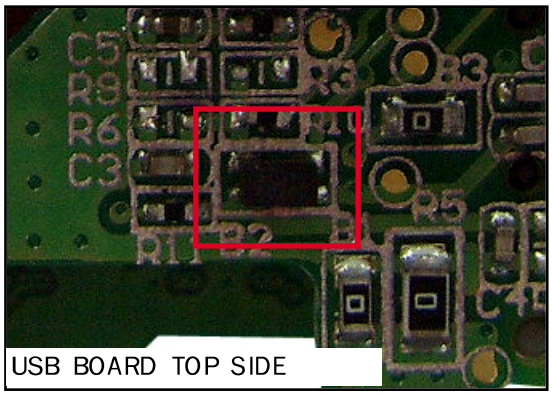


The example of weired colored image is shown if No.2 pin is torn.

- Images are not downloaded

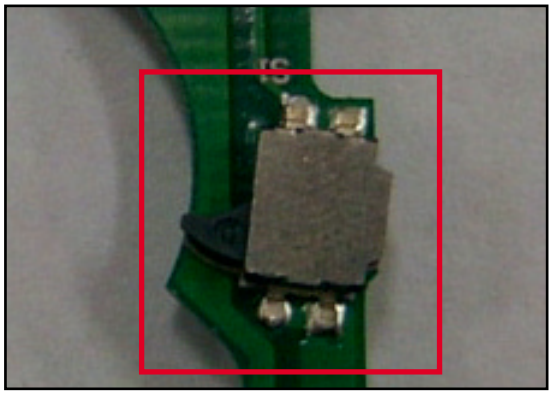


Check the soldering of USB1



Check the B2 on USB BOARD

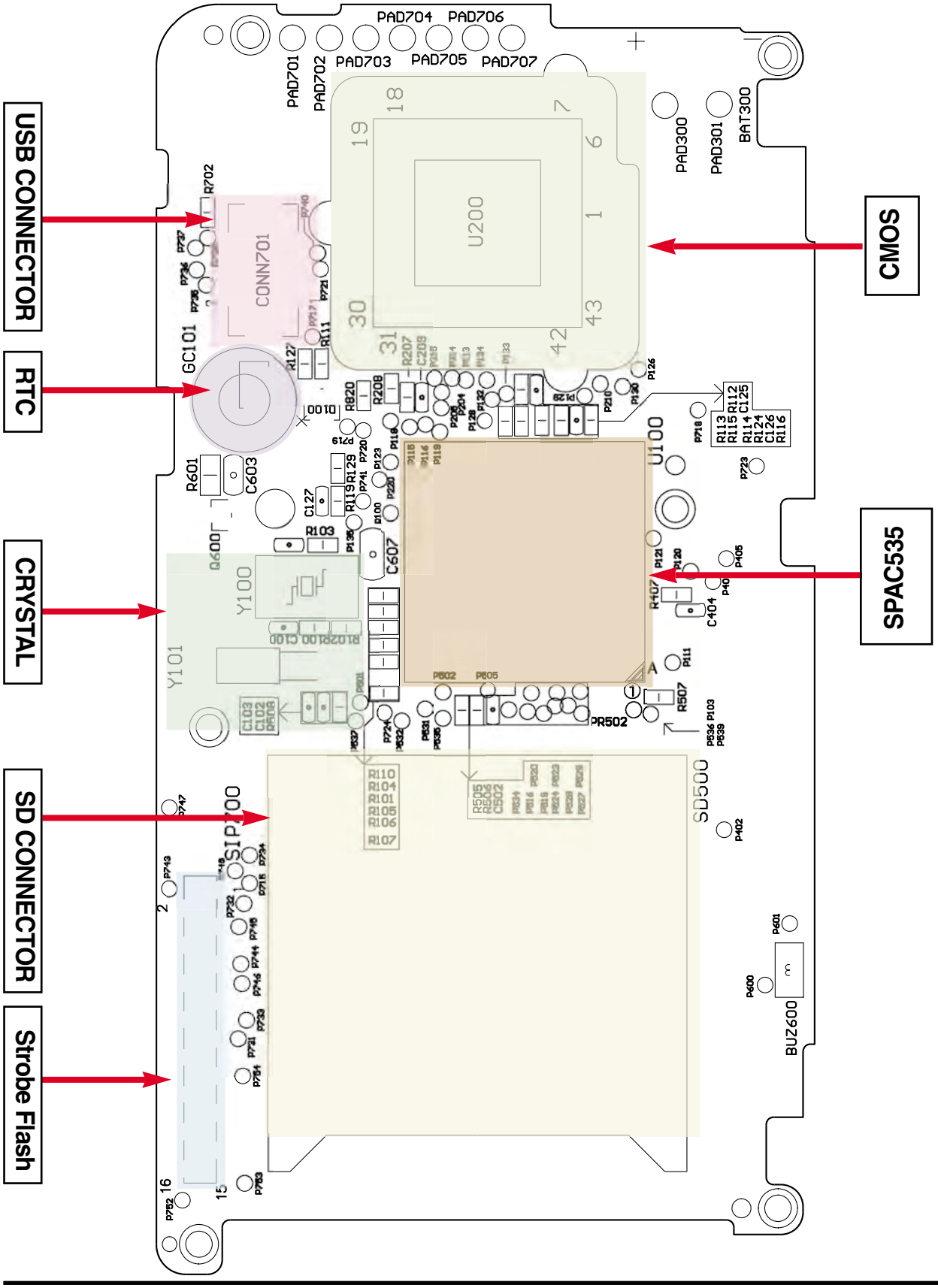
- MACRO problem



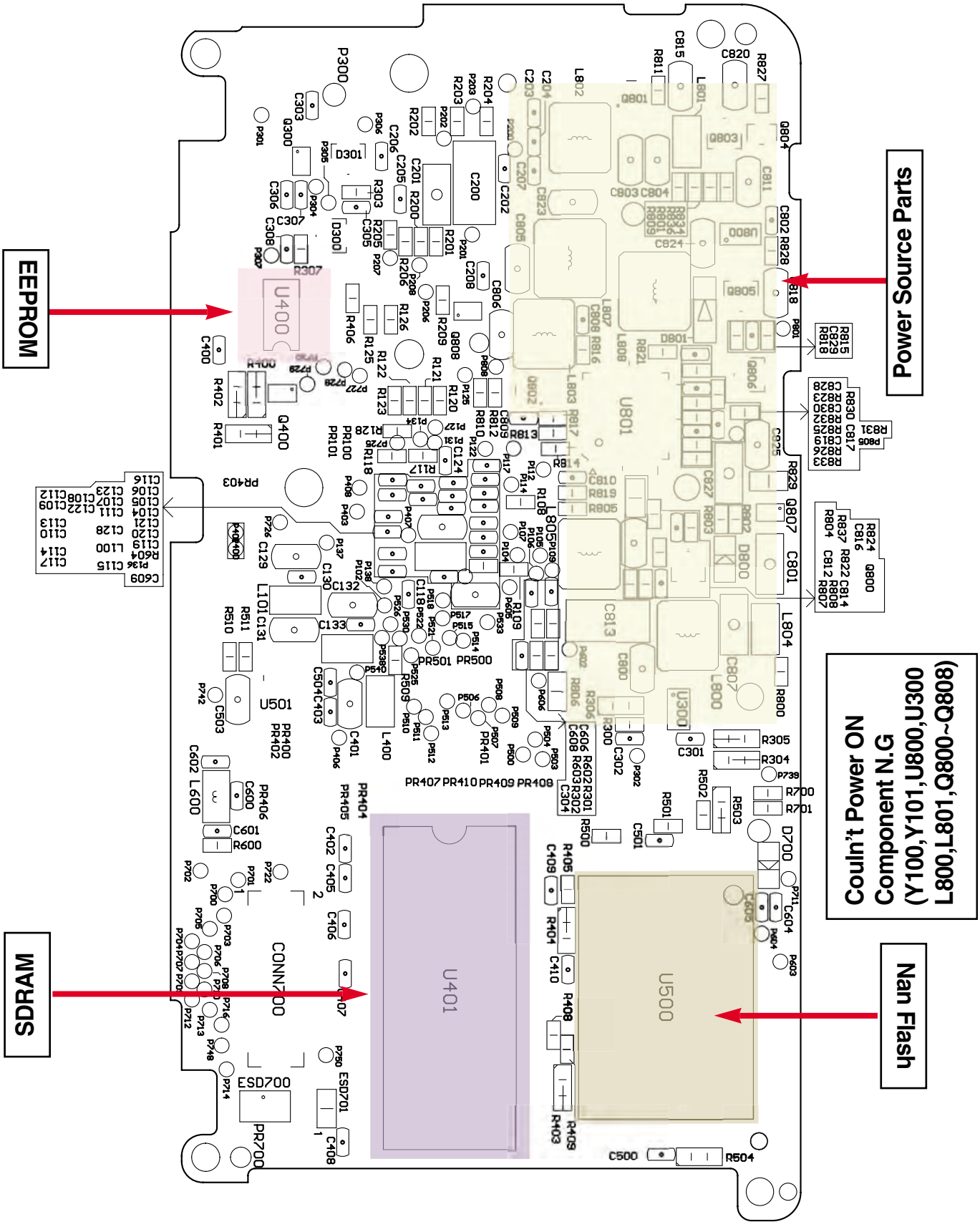
Check the S1 on the USB BOARD

1, PARTS ARRANGMENT FOR EACH PCB

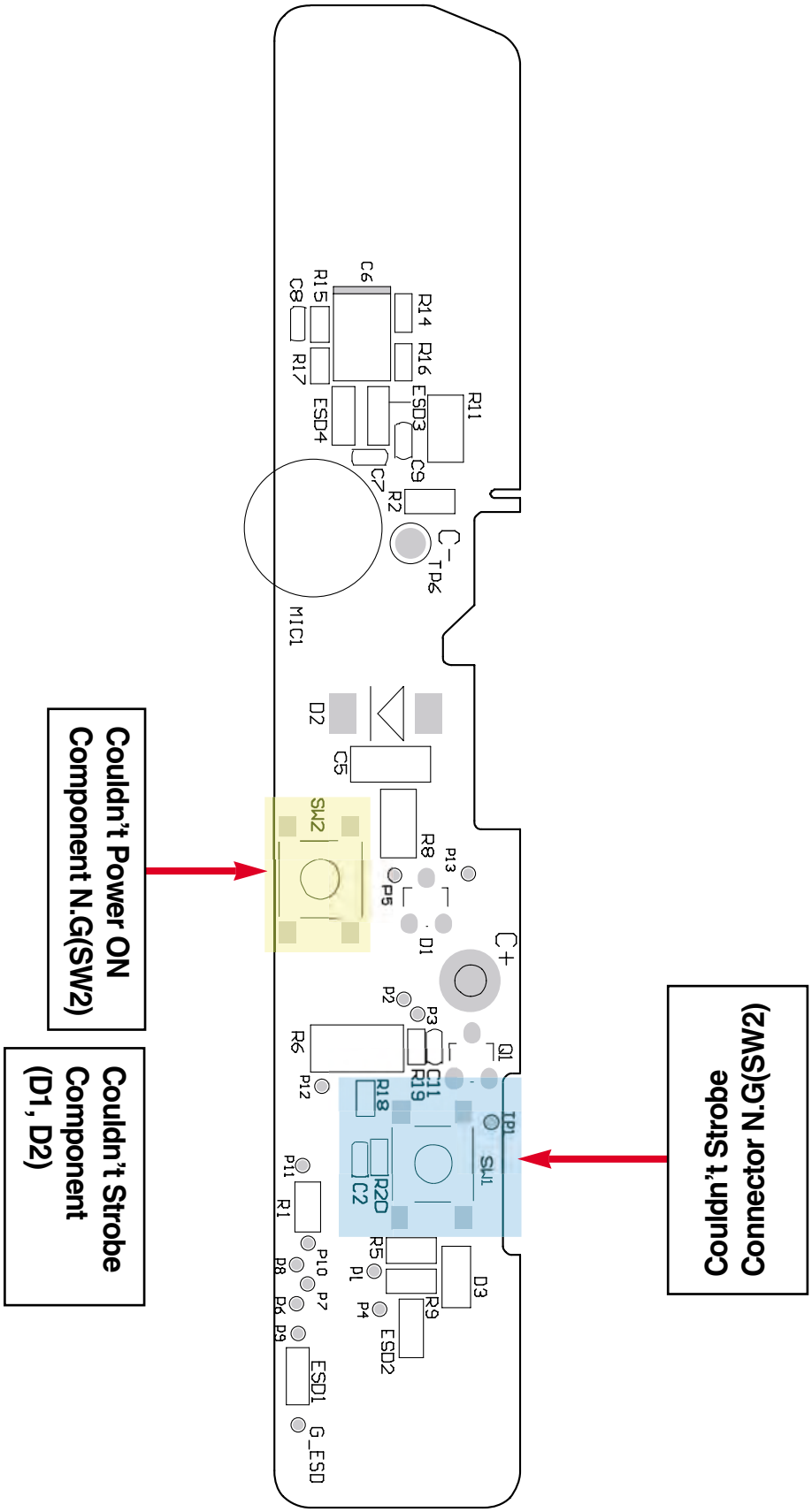
1) Main PCB Ass'y_TOP



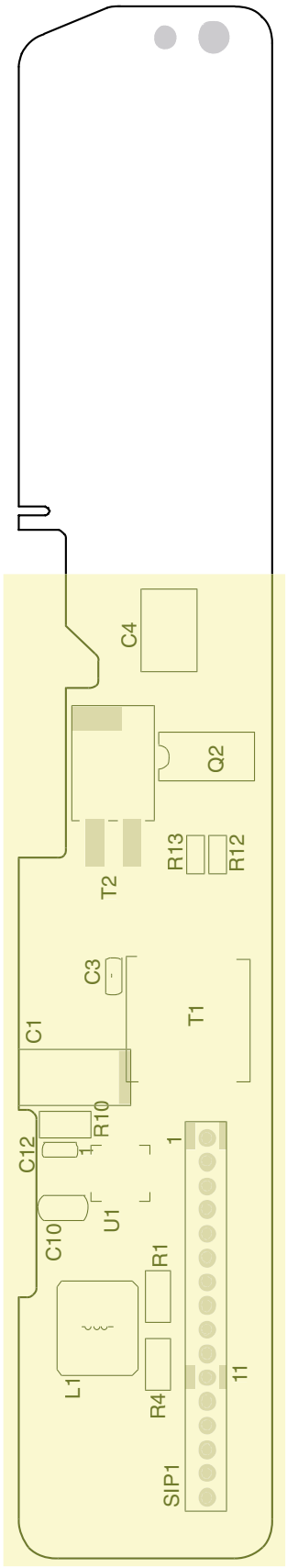
2) Main PCB Ass' y__BOT



3) Flash PCB Ass'y_TOP



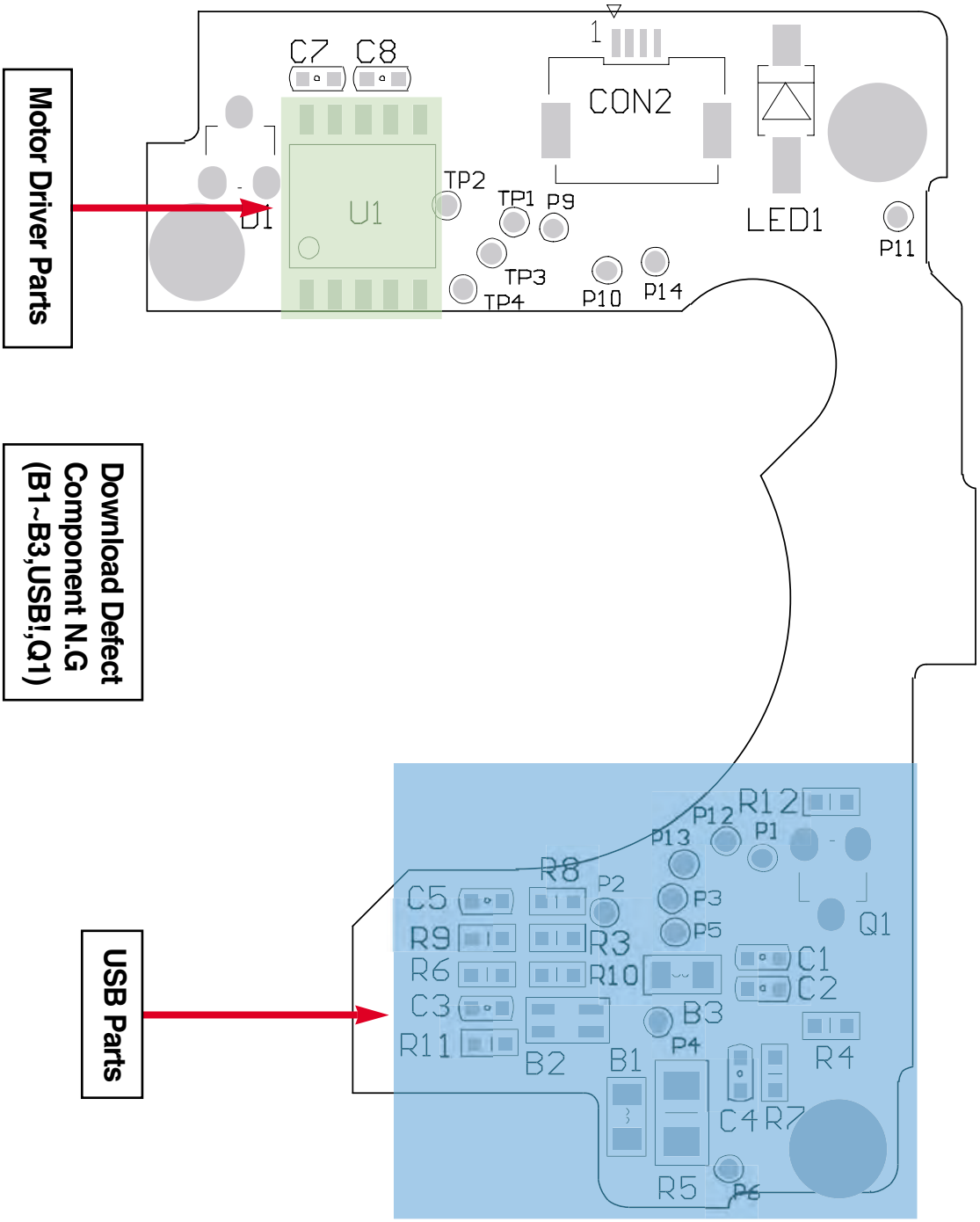
4) Flash PCB Ass'y_BOT



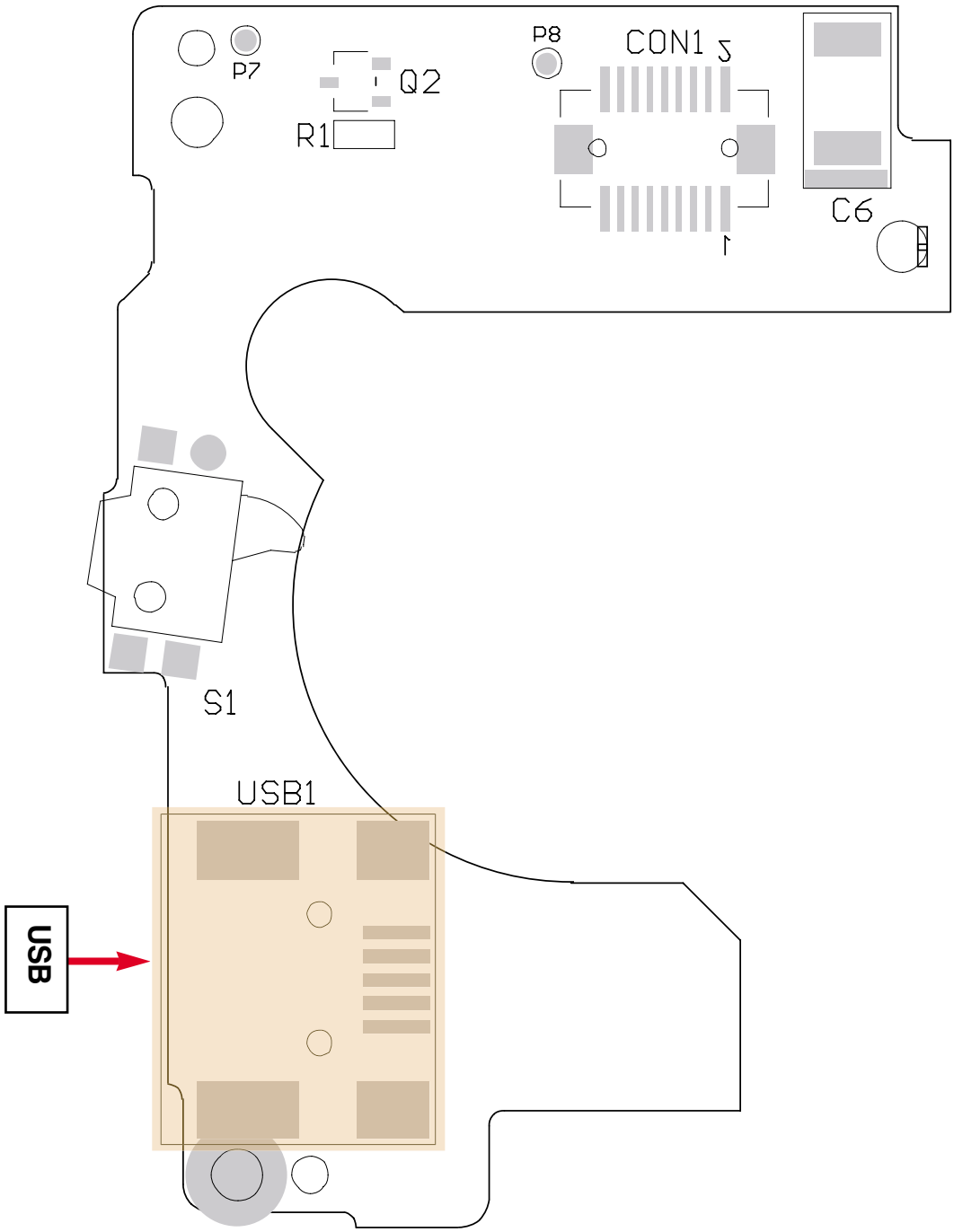
Couldn't Strobe Component N.G (T1,T2,L1)

Couldn't Charge Component N.G(U1,Q1)

5) USB PCB Ass'y__TOP



6) USB PCB Ass'y__BOT



7) Key PCB Ass'y__BOT